COUNTY BOROUGH OF NORTHAMPTON.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1929.

By **STEPHEN ROWLAND**, M.D.Edin., D.P.H.Camb.,
Medical Officer of Health,
School Medical Officer, and
Chief Tuberculosis Officer.

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APPENDICES.

To the Mayor, Aldermen, and Councillors of the County Borough of Northampton.

Mr. Mayor, Mrs. Adams, and Gentlemen,

I have the honour to present herewith the Annual Report of the Medical Officer of Health for the year 1929, embracing a period of fifty-two weeks, commencing on 30th December, 1928, and ending on 28th December, 1929.

The report is on the lines of its predecessors and contains little new matter.

The chief event of the year was the presence of smallpox, which persisted for the whole of the twelve months covered by the report. Particulars will be found on pages 21 to 25.

I must again acknowledge the wholehearted assistance and loyal co-operation I received from all members of my Staff during the year.

I remain,

Your obedient Servant,

Stephen Rowland

Medical Officer of Health.

Public Health Department,
Guildhall, Northampton,
April, 1930.

PUBLIC HEALTH STAFF.

Medical Officer of Health, School Medical Officer, and Chief Tuberculosis Officer	*Stephen Rowland, M.D. Edin., D.P.H. Camb.
Tuberculosis Officer	*Norman B. Laughton, M.B., Ch.B., D.P.H.
Assistant Medical Officer for Maternity and Child Welfare	*Miss Evelyn F. Bebbington, M.B., M.R.C.S., D P.H.
Chief Sanitary Inspector and Rat Officer	W. J. Barker † ‡
Sanitary Inspector and Inspector of Common Lodging Houses	J. Walker † ‡
Meat and Food Inspector	J. Brown † ‡
Sanitary Inspector and Inspector of Canal Boats	B. Knowles † ‡
Assistant Sanitary Inspectors ...	T. L. Boast † ‡
	S. A. Tench †
Health Visitors	*Miss L. M. Islip ‖ §
	*Miss M. E. Mossey ‖ § ¶
	*Mrs. F. H. Smith ‖ § ¶
	*Miss F. M. V. Blythe Brown ‖§
Tuberculosis Nurse	*Miss L. Reese §
Matrons	Miss M. E. Norman § ¶ (*Harborough Road Infectious Diseases Hospital*)
	*Miss K. B. Stone § ¶ (*Welford Road Tuberculosis Hospital*)
Clerks	A. F. Knight (*Chief Clerk*)
	*S. J. Knight (*Tuberculosis Dispensary*)
	H. T. Boswell
	*Miss G. L. York (*Infant Welfare Centre*)
	G. B. Pratt
Removal and Disinfecting Staff	*C. H. Williams
	*A. W. Blason
	*R. G. A. Britten
Rat-catcher	J. Malone

All the above are whole-time Officers. School Medical Staff is not included.

*Signifies that contribution is made towards salary under the Public Health Acts or by Exchequer grants.

† Holds Inspector's Certificate of the Royal Sanitary Institute.

‡ Holds Certificate for Inspecting Meat and Other Foods.

‖ Holds Certificate of the Central Midwives Board.

§ General Trained Nurse.

¶ Fever Trained Nurse.

SUMMARY OF STATISTICS.

Area of Borough (in acres)		3,469
Population :—		
Census 1921		90,895
Estimated at Mid-year 1929	For Birth-rate	94,180
	For Death-rate	93,970
Number of Inhabited Houses :—		
Census 1921		19,893
Estimated at Mid-year 1929		23,600
Number of Families or Separate Occupiers (1921)		21,979
Rateable Value (31st December, 1929)		£598,856
Yield of One Penny Rate (31st December, 1929)		£2,557

Extracts from Vital Statistics for the Year 1929.

		TOTAL.	M.	F.		
Live Births	Legitimate	1,189	583	606	Birth-rate	13·3
	Illegitimate	60	31	29		
	Total	1,249	614	635		
Stillbirths	Legitimate	46	32	14	Rate	0·51
	Illegitimate	2	1	1		
	Total	48	33	15		
Deaths		1,093	540	553	Death-rate	11·6
"Standardised Death-rate" (Factor 0·921)						10·7
Number of Women dying in, or in consequence of, Childbirth	From Sepsis			2		
	From Other Causes			2		
Deaths of Infants under One Year of Age per 1,000 Live Births :—						
Legitimate 50·5	Illegitimate 100·0			Total		52·8

	NUMBER.	RATE.
"Zymotic Deaths"	35	0·37
Deaths from Measles (all ages)	11	0·12
Deaths from Whooping Cough (all ages)	3	0·03
Deaths from Diarrhœa (under two years of age)	7	*
Deaths from Respiratory Tuberculosis	69	0·73
Deaths from Other Tuberculous Diseases	8	0·09
Total Tuberculosis Deaths	77	0·82
Deaths from Cancer	148	1·57
Deaths from Influenza	32	0·34

*5·6 per 1,000 Live Births Registered.

I.—STATISTICS AND SOCIAL CONDITIONS.

Population

The Registrar-General estimated the population of Northampton in the middle of 1929 to be 94,180, which is a decrease of ninety on the figure he supplied for 1928. As mentioned in previous reports, this is only an estimate for statistical purposes, such as the calculation of the birth-rate. For the calculation of the death-rate he reduces the figure given above to 93,970.

The natural increase, *i.e.*, the excess of live births over deaths, was 156, or 1·7 per thousand. Table 1 gives the population and natural increase during each of the last ten years.

Next year (1931) will be a census year and it will then be possible to get more accurate knowledge of the population and to form some idea of the effects of building so many new houses outside the Borough boundary.

Births

1,249 live births were registered, giving a birth-rate of 13·3 per thousand, compared with 16·3 for England and Wales. This is the lowest rate ever recorded in the Borough. Table 2 gives the rates from 1920 onwards for comparison.

Sixty (4·8 per cent.) were illegitimate.

Stillbirths

The number of stillbirths registered was forty-eight. The rate, expressed per thousand of the population, is therefore 0·51, whereas that for the country is 0·68.

Deaths

There were 1,093 deaths registered, equal to a death-rate of 11·6, compared with 13·4 for England and Wales. This rate (11·6) is 0·3 above the corresponding figure for 1928, which is a much smaller rise than that shewn by England and Wales, where the death-rate rose from 11·7 in 1928 to 13·4 in 1929, largely due to the influenza epidemic in the early part of the year. The rates during the last decennium are set out in Table 3.

Eighty-eight deaths occurred for which no medical certificates of the cause of death were furnished; these included eighty-two inquests and six uncertified, or 8·1 per cent. of the deaths registered.

Deaths of elderly persons (sixty-five years and upwards) accounted for 50·9 per cent. of the deaths.

456 persons, including residents and non-residents, died in one or other of the local institutions. The deaths of the non-residents were transferred by the Registrar-General to their respective areas. In the same way the deaths of Northampton residents which took place out of town were transferred to us as "inward transfers."

The "standardised death-rate" for Northampton (obtained by applying the Registrar-General's factor for age and sex constitution to the crude rate) was 10·7 per thousand.

Following the usual custom, Table C at the end of this report, giving the causes of death at different periods of life, has been prepared in the Department from information supplied

weekly by the local registrars. The classification agrees in essential particulars with the figures received from the Registrar-General on 24th March, 1930.

Social Conditions

So far as I am aware, no new industries have come into the Borough since my last report was written. With the tendency of our colonies to manufacture their own boots, it does not seem that any marked increase in the staple trade of the Town can be expected, so that it would appear to be only by the introduction of some new industry that the population of Northampton will increase, beyond what will be brought in by the extension of the Borough boundaries.

Unemployment

There does not appear to have been any serious increase of unemployment in the Borough during 1929, nor can last year be said to have been much improvement on the previous one. Relief work was again only of a limited nature, such as work in the parks and recreation grounds. At the same time, a considerable number of men were engaged as temporary labourers by the Borough Engineer on road reconstruction ; at one period, when the work was in full swing, as many as four hundred were so employed. Work, in so far as casual labourers was concerned, was on the whole good. It is the less physically fit and elderly type of applicant who keeps the waiting list of registered unemployed high.

During the last week of the year, 113 men, upon whom depended 91 women and 208 children, were receiving unemployment relief from the Guardians.

Meteorology

The notes on meteorology in Table 4 were compiled from readings supplied by Mr. R. H. Primavesi. The two outstanding features were, first, the severe frost which prevailed during the early part of the year, the lowest temperature recorded being 15·0°F. on 14th and 15th February, and, second, the prolonged drought which succeeded the frost and continued until October. The frost held for about three weeks in January and February and did much damage to water pipes. The highest temperature recorded in the shade was 87·0°F. on 21st July. There were seventy-one "cold nights," *i.e.*, nights on which the thermometer fell below 32°F. The first nine months ended with a total rainfall of exactly nine inches, each month having a fall below the average. The nine months of drought were succeeded by three months of wet weather, so that although there was never an excessive fall on any single day, the year ended with a total rainfall of 21·38 inches, which is only 1·17 inches less than the average for the last twenty-five years. The heaviest fall during any twenty-four hours was only 0·75 on 8th December, which contrasts very strikingly with the records of some other areas. There was very little snow in the neighbourhood at any time. We have no instruments for measuring the amount of sunshine, but I fancy it was above the normal.

Other Statistics

The notes on infant mortality, the incidence and mortality from infectious diseases, housing conditions, and other statistics usually included in the annual report, will be found under the headings referring to these matters.

Attention is directed also to the vital statistics on page 6 and to Tables A, B, C, and D at the end of this report.

II.—GENERAL PROVISION OF HEALTH SERVICES.

Hospitals

The hospital arrangements remain as outlined in last year's report, page 9.

Institutional Provision for Unmarried Mothers

This subject was fully dealt with in my 1928 report (page 9).

Ambulance Facilities

In June, the Public Health Committee purchased a new motor ambulance. It is a great improvement on the two hitherto owned by the Department, which are very out of date and leave much to be desired. At present, all three are in use.

Clinics and Treatment Centres

The details relating to the Infant Welfare Centres, School Clinic, Tuberculosis Dispensary, Venereal Diseases Clinic, Orthopædic Clinic, and Artificial Light Clinic, given in my reports for 1927 and 1928, remain substantially the same.

Public Health Officers

A list of the whole-time officers of the Public Health Department will be found on page 5.

School Medical Service

The arrangement by which the Medical Officer of Health acts as School Medical Officer, and is able to supervise and to be brought in close touch with the work of the Assistant School Medical Officer and the school dentists, has been described in previous reports. One change was made in the staff of the School Medical Department, Miss D. G. Coutts, L.D.S.R.C.S.Eng., replacing Mr. V. R. Morgan as Assistant Dental Officer in June.

The annual report of the School Medical Officer, prepared according to the requirements of the Board of Education for the Education Committee, is published separately and gives particulars of the work performed by the school medical service.

Smallpox was again prevalent in some of the schools and necessitated a large amount of inspection in connection with school contacts. The scheme we introduced in 1928 (and described in the report for that year) to deal with contacts was continued as long as the necessity existed and was again found to work satisfactorily, much better than closing infected schools would have done.

No school was closed on account of the presence of infectious disease.

The average number of children on the school registers was 12,557, with an average attendance of 11,219·4 (89·3 per cent.).

Professional Nursing in the Home

These duties are carried out as described in the report for 1927, page 11.

Midwives

No subsidy is paid to any midwife and no midwife is employed by the Local Authority. Twenty-one trained and two untrained midwives gave notice of intention to practise in 1929. (*See* also Appendix II., page 53).

Nursing Homes

At the end of December, 1929, there were on the register eight nursing homes, viz. :—

Maternity Homes	3
Mixed Home	1
Homes for Aged and Infirm, etc.	3
Home for Mothers and Babies	1

The latter institution is conducted by the Peterborough Diocesan Authorities.

The General Hospital is exempted annually under the provisions of Section 6 of the Nursing Homes Registration Act, 1927.

All these homes were visited and approved by the Medical Officer of Health before registration, and they are inspected at regular intervals by the Assistant Medical Officer for Maternity and Child Welfare, who is the officer appointed by the Local Supervising Authority for such duty.

Maternal Mortality

This subject is dealt with in the section on maternity and child welfare on page 32.

Legislation in Force

Appended is a list of special Acts and Bye-laws relating to public health in force in the County Borough :—

Local Acts, Etc.

Northampton Improvement Act, 1843.
Northampton Waterworks Act, 1861.
Northampton Improvement Act, 1871.
The Local Government Board's Provisional Orders Confirmation (Arundel, etc.) Act, 1876.
Northampton Waterworks Act, 1882.
Northampton Corporation Waterworks Act, 1884.
Local Government Board's Provisional Orders Confirmation (No. 4) Act, 1892.
Local Government Board's Provisional Orders Confirmation (No. 13) Act, 1893.
Local Government Board's Provisional Orders Confirmation (No. 14) Act, 1900.
Local Goverment Board's Provisional Orders Confirmation (No. 10) Act, 1907.
Northampton Corporation Act, 1911.
Northampton Corporation Water Act, 1913.
Northampton Corporation Act, 1922.

Order of Ministry of Health, dated 13th December, 1929, extending time for supply of water from certain wells under Northampton Corporation Act, 1922, until 1st June, 1935.

Ministry of Health Provisional Orders Confirmation (No.1) Act, 1925.

Ministry of Health Provisional Orders Confirmation (No. 5) Act, 1925.

Ministry of Health Provisional Orders Confirmation (No. 10) Act, 1929.

General Adoptive Acts.

The Baths and Washhouses Act, 1846.

The Infectious Disease (Prevention) Act, 1890 (adopted 6th April, 1891).

Public Health Acts Amendment Act, 1890,
Parts I., II., III., and V. (adopted 6th April, 1891).

Public Health Acts Amendment Act, 1907,
Part II., ss. 15 to 18 and 20 to 33 inclusive (adopted 3rd July, 1911) ;
Part III., s. 47 (21st December, 1923) and s. 50 (17th July, 1912) ;
Part VI. (3rd July, 1911) ;
Part X., s. 95 (14th November, 1922).

Public Health Act, 1925,
Parts II., III., IV., and V., except ss. 21, 25, 27, and 34 in Part II. and ss. 48 and 49 in Part IV. (adopted 8th March, 1926) ;
Part II., s. 21 (15th May, 1926).

Bye-laws.

Under the Public Health Acts :—
Common Lodging Houses (confirmed 1884).
Slaughterhouses (1887 and 1929).
Nuisances from Snow, Filth, Ashes, Keeping Animals, &c. (1895).
Cleansing Footways and Pavements (1895).
Removal of House Refuse (1895).
Offensive Trades (1895).
Cemeteries (1910—1924).
Luggage Porters and Light Porters (1924).
Parks and Recreation Grounds (1926).
New Streets and Buildings (1927).
Hackney Carriages, Omnibuses, Carriers' Carts, and Other Vehicles (1927).

Under Housing Acts :—
Tents, Vans, Sheds, and Similar Structures used for Human Habitation (1914).

Under Northampton Corporation Water Act, 1913 :—
Prevention of Pollution (1915).

Under the Nursing Homes Registration Act, 1927 :—
Nursing Homes (1929).

III.—SANITARY CIRCUMSTANCES.

Water Supply

Eleven samples of the Town's water supply were submitted for bacteriological examination. As usual, these were spread over the whole year and taken from different parts of the Town. The reports were much the same as in previous years, that is to say they varied considerably, the water at some periods reaching a high degree of purity, while at other times, and without any apparent cause, its standard of purity fell below what is considered satisfactory for a public supply. Again, even when coliform organisms were found in 5 c.c., the Bacteriologist remarked on the small number of bacteria present in 1 c.c.

On two occasions samples were submitted to the Public Analyst, who expressed the opinion that the water was satisfactory for drinking purposes.

Polluted Well

Six persons were notified as suffering from typhoid fever in all of whom the source of infection was suspected to be the water from " Jubilee Well," Kingsthorpe. Four were Borough residents, the other two being visitors from out of town who consumed the suspected water during their visits to Kingsthorpe. All occurred within a period of six or eight weeks. Seven samples of the well water were submitted to bacteriological examination and three to chemical analysis. The reports of the Bacteriologists varied to some extent, and whilst none condemned the water, some of the samples shewed a high standard of purity and at no time was there any evidence of sewage contamination. Several attempts to isolate organisms of the typhoid group failed. The chemical examination, which is not believed to be so delicate as the bacteriological, was not quite so satisfactory. The series of samples shewed the " Jubilee Well " to be quite as pure as the Town supply, consequently no action was taken with a view to closing the well, and the ban which had been placed on the water, advising boiling before use for drinking purposes, was removed. If the well was the source of the infection the contamination must have been slight and intermittent, probably caused by some drainage operations which took place in the neighbourhood during the summer. Further reference to this matter is made under the heading " Enterica " on page 20.

Pollution of Streams

In spite of the dry summer and autumn, when there was little flow of water in the River Nene, we were not troubled with any serious pollution and I believe arrangements are now in operation which will prevent any such occurrence.

Drainage and Sewerage

The work of rebuilding the older sewers of the Town has not yet been commenced, but I understand will be started at an early date.

The Borough Engineer has kindly furnished information regarding drainage work carried out during the year :—

New soil sewer, Cattlemarket.
Replacement of defective sewer, Cattlemarket Road.
New surface-water sewer, Kingsthorpe Road.
Main Drainage of St. James' (Argyle Street, Harlestone Road (small section), and Spencer Bridge Road).
Kingsthorpe Main Drainage.
Sewer extension, Wheatfield Road.

Scavenging

A change was made in the method of the collection and disposal of household refuse, a method which had been a perennial source of discussion, generally reaching its height about October each year. After inspecting arrangements in various parts of the country, the Highways Committee adopted the " Pagefield " system, in which specially constructed horse-drawn wagons are used to collect the rubbish. The full vehicle is then placed upon a motor carriage and conveyed to the place of disposal. At the time of writing only half the scheme, viz. :—the collection, is in operation, as the disposal plant erected at West Bridge Works is not yet completed, so it is too early to give an opinion as to the efficiency of the whole system, but I have no doubt it will be a great improvement on the old one, than which nothing could be much worse. Unfortunately, Northampton was not built with a view to easy scavenging.

Sanitary Inspection

The work of the sanitary inspectors is summarised in Table 5, and Tables 6 and 7 give further particulars in connection with house drainage. During the year, 2,673 houses were inspected, and of these 1,015 were found to require some attention, with the result that 683 were repaired and 594 were cleansed and whitewashed, while others were dealt with as the conditions required, details of which appear in Table 5.

Canal Boats

The annual report under the Canal Boats Acts was sent to the Ministry of Health before the appointed date, 21st January. The Canal Boats' Inspector reported that twenty-nine boats, registered to carry ninety-six adults and two children, were inspected. The actual number of occupants at the time of inspection was forty-nine adults and forty-four children. Two boats required repairs and one required painting. No infectious disease occurred on any boat. The number on the register and in use is believed to be three.

Common Lodging Houses

Four common lodging houses were on the register at the end of 1929, the same as in the previous year. These have accommodation for 158 men. The premises have been visited regularly by the sanitary inspector whose duty it is to perform this work, and he reports they have been kept in a satisfactory manner and properly conducted.

Factories and Workshops

Table E gives an account of the work done under the Factory and Workshop Act, 1901, set out in the prescribed form. The general scheme under which the Act is worked was given in the report for 1927.

Smoke, etc. Nuisances

There were several occasions when we had to draw the attention of persons concerned to nuisances arising from the emission of smoke, but the condition complained of was always abated on our making representations. The chief cause of the emission of undue quantities of smoke from factory chimneys is bad stoking. If too much fuel is put on to a furnace fire at one time, say at long intervals, it will cause a great amount of smoke. It is better to stoke a little and often, paying careful attention to the draught. This is, of course, impossible if the stoker is frequently called away from the boiler for other duties.

Offensive Trades

There was no change in the number of offensive trades carried on within the Borough, which comprise two tanners, three tripe boilers, and one rabbit skin dresser. The premises were regularly inspected and no serious infringement of the bye-laws was discovered and no complaints were received of any nuisance arising from them.

Rag Flock Acts, 1911 and 1928

The Chief Inspector paid ten visits of inquiry to premises where rag flock is used, but as all the invoices examined contained guarantees that the flock reached the standard prescribed by the Acts, no samples were taken for chemical analysis. It may not be out of place to explain that the object of the Acts and the chemical standard prescribed therein is to ensure that old rags contaminated by excremental matter, etc., be not used for the upholstery of low-priced furniture, etc.

Rat Repression

The Chief Inspector continued the duties of Rat Officer and supervised the work of the Rat-catcher. Though one is frequently reading advertisements of new substances for destroying rats, we have not so far seen any reason for departing from the well tried and safe methods of traps and ferrets. No part was taken in what is called the " Rat Week " campaign, as the only time it was tried in Northampton it was not a success ; the time and money spent met with practically no response. We believe that steady work during the whole year produces better results than one week's outburst. The yearly number of rats accounted for since the Rat-catcher was appointed in 1919 is given in Table 8. When one considers what prolific creatures rats are, one cannot help being struck by the amount of destruction prevented by the Borough Rat-catcher.

Premises Controlled by Bye-laws, etc.

Particulars of these, excepting the ones above-mentioned, will be found under the section dealing with food and comprise cowsheds, dairies, bakehouses, slaughterhouses, and ice cream shops.

IV.—INSPECTION AND SUPERVISION OF FOOD.

Milk Supply

Only a small amount of milk is produced in the Town, but as the open country can be reached from the centre of Northampton in any direction within a quarter of an hour, the transport of milk presents no difficulties. About 120 cows were housed within the Borough during the winter, to be turned out during the summer months.

As far as one can ascertain, the daily consumption of milk remains about stationary. In recent years many slogans have been adopted, but it is doubtful if any one of them would be more worth putting into practice than " Drink more Milk."

The report on the chemical examination of milk will be found under the heading dealing with the Food and Drugs (Adulteration) Act, 1928, page 18.

Dairies, Cowsheds, and Milkshops

At the end of December, fifteen cowkeepers and 181 retail dairymen and three wholesalers were on the register. Not all of these were resident in the Town ; twenty-seven lived outside and their premises were inspected and passed as satisfactory by the sanitary authority in whose area they were situated before they were placed on our register. In addition, sixty-nine persons are permitted to sell milk in bottles only, a condition being that the seal of the bottle be not broken before the bottle leaves the premises. Eighteen certificates of registration were issued, but eight of these related to transfers. The inspectors made 287 visits to registered premises and defects were found and remedied in eight of them.

Sterilised Milk

This class of milk still finds favour with a certain proportion of the inhabitants ; it is brought into the Town by two large companies. Forty-four retailers are permitted to distribute it.

Milk (Special Designations) Order, 1923

At the end of 1929, the following licences were in operation under this Order :—

Dealers' licences to use the designation " Grade A (Tuberculin Tested) " :—

(*a*) bottling establishments ..... Three
(*b*) shops ..... Six

Dealers' licences to use the designation " Pasteurised " :—

(*a*) Pasteurising establishments ..... Two
(*b*) shop ..... One

These licences were held by eight dairymen.

There is no appreciable demand in the Borough for " Certified " milk and there was no application for a licence to sell milk of that grade.

Twenty-two samples of milk were submitted for bacteriological examination, viz. :—twelve " Grade A (Tuberculin Tested)," eight " Pasteurised," and two ordinary milk in bottles. Four of the graded milks failed to reach the standard laid down

in the Milk (Special Designations) Order, 1923, the defaults being as follow :—

" Grade A (Tuberculin Tested) " Milk :—

Sample No. 93 contained 2,780,000 bacteria per c.c.

Sample No. 101 contained coliform organisms in 0·01 c.c.

" Pasteurised " Milk :—

Sample No. 91 contained 254,000 bacteria per c.c.

Sample No. 98 contained 142,000 bacteria per c.c.

To conform to the standard, " Grade A (Tuberculin Tested) " milk should not contain more than 200,000 bacteria per c.c. and coliform organisms must not be found in 0·01 c.c. No rule is laid down as regards coliform organisms in " Pasteurised " milk, but it must not contain more than 100,000 bacteria per c.c.

The average bacterial count of the ten satisfactory " Grade A (Tuberculin Tested) " milks was 11,350 per c.c., and the six " Pasteurised " milks gave an average of 9,717, which are both well within the standards laid down by the Order.

One of the ordinary milks sold in bottles contained coliform organisms in 0·01 c.c. ; the other had none in 1 c.c. The average bacterial count of these two milks was 67,050 per c.c.

Twenty samples were sent by the Department to the Public Analyst for chemical analysis. The average contents were as follow :—

	MILK-FAT.	NON-FATTY SOLIDS.
" Grade A (Tuberculin Tested) " (twelve samples)	4·18 per cent.	8·70 per cent.
" Pasteurised " (eight samples)	3·58 per cent.	8·69 per cent.

Preservatives

The Public Health (Preservatives, etc. in Food) Regulations, 1925 to 1927, besides governing several other matters relating to preservatives in food, revoked the Milk and Cream Regulations, making it illegal to sell cream to which preservative has been added. This latter regulation met with considerable opposition in various parts of the country, where it was said by dealers it would ruin their trade, and make it impossible to keep cream fresh for sale. All the samples submitted to the Analyst were found to be free from preservatives.

Food Inspection

No change has taken place in the arrangement which has been in force for some years, whereby one of the staff is specially appointed as Food Inspector and three of the district inspectors devote a portion of their time to this work, the whole being under the supervision of the Chief Inspector. Table 9 gives details of the food condemned.

Slaughterhouses

Fifty-four slaughterhouses remain on the register. To these the inspectors made 3,797 visits, 3,619 being during the actual process of slaughtering. Fifty-five infringements of the bye-laws (chiefly of failure to whitewash at the proper time)

were discovered. They were remedied without the necessity of taking legal action.

No opposition is now being shewn towards the use of the " humane killer " in the slaughtering of animals. I am informed that several butchers have expressed themselves so satisfied with it they would not revert to the pole-axe if given the opportunity.

142 notices of intention to slaughter out of the usual hours were received. **Public Health (Meat) Regulations, 1924**

One firm was prosecuted for exposing meat for sale in such a manner as to render it liable to be contaminated by mud, etc. splashed up from the street. The magistrates found the defendants guilty, but as it was the first case of its kind to be brought before them and also on account of the time of the year, they only inflicted a nominal fine of ten shillings. It must surely be a mistaken idea for butchers to think they can obtain a more ready sale for meat by exposing it in such a position as to run the risk of its being fouled by mud, etc. from the street. The meat looks more attractive when exhibited inside a clean window. To think otherwise would be shewing a poor conception of the intelligence of the general public.

Table 10 gives particulars regarding tuberculosis found in slaughtered cattle. As usual, calves and sheep shew marked immunity to that disease, but no less than 68·4 per cent. of whole and 89·5 per cent. of part carcases of beef and pork condemned were surrendered because of this condition. **Disease in Meat**

It was not found necessary formally to seize any meat on account of disease, all that was condemned having been found by the inspector at the time of slaughter and voluntarily surrendered, or the inspector's attention was called to it by the butcher, who was willing to accept the decision of the officer. A great change for the better has come over the meat trade in Northampton in the last twenty-five years ; the butchers are willing and anxious to work with the inspector to the mutual satisfaction of both sides. **Section 117 of the Public Health Act, 1875**

An inspector seized fourteen pounds of unsound fruit exposed for sale on a hawker's barrow. This was condemned by a magistrate and destroyed. The vendor was summoned and fined twenty shillings.

At the end of the year, 101 bakehouses were in use. The inspectors made 191 visits of inspection, when thirty-four infringements of the bye-laws were found, the chief default being neglect to whitewash at the proper time. All these breaches of the bye-laws were remedied without recourse to legal action. **Bakehouses**

1,141 visits of inspection were made to other premises where food is dealt with, including those connected with the manufacture and storage of potted meats, jams, sweets, and ice cream. **Other Premises dealing with Food**

Food Poisoning

No case of suspected food poisoning was brought to the notice of the Department and no bacteriological examination of food (other than milk) was made.

Chemical Work

All chemical analysis required by the Local Authority is performed by the Public Analyst to the Borough, Mr. A. Prideaux Davson, A.R.C.Sc. (Lond.), F.I.C., F.C.S., of Bermondsey.

Food and Drugs (Adulteration) Act, 1928

242 samples (*see* Table 11) were taken under this Act, 90 informally. Eight were found not to be genuine, representing 3·3 per cent. of the whole, compared with 5·6 per cent. in 1928.

Of the eight non-genuine samples, six were milk taken officially and two informally. In other words, all the non-genuine samples were milk and they fell below the standard in the following particulars :—

No. 1 contained added water to the extent of 4·7 per cent. On instructions from the Executive Committee of the Public Health Committee, a warning letter was sent to the vendor.

No. 3 contained 12·4 per cent. of added water. The vendor was summoned before the Court, but the case was dismissed, the magistrates believing the milk was sold as it came from the cow.

No. 55 shewed a deficiency of 21·3 per cent. of milk-fat. The dairyman was fined £1.

No. 90 was 3·0 per cent. deficient in milk-fat. A warning letter was sent.

No. 115 was deficient in milk-fat to the extent of 2·1 per cent. Warned.

No. 179 shewed a deficiency in milk-fat of 14·0 per cent. Warned.

No. 22 was an informal sample 1·3 per cent. deficient in milk-fat. A subsequent informal sample from the same source was reported to be genuine.

No. 32 was also informal and was found to be 12·7 per cent. deficient in milk-fat. Five official samples were subsequently taken from the producer and all were found to reach the Government standard.

Two samples of skim milk had fat contents of 0·28 and 0·30 per cent.

All the milks submitted to the Public Analyst were examined for the presence of preservatives, but none were detected.

The average fat content of the 149 samples of genuine milk was 3·64 per cent. and the non-fatty solids 8·76 per cent. The corresponding figures laid down as a minimum by the Ministry of Agriculture and Fisheries are 3·0 and 8·5.

V.—PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES.

"Zymotic Deaths"

During 1929, thirty-five deaths were certified as due to the so-called "zymotic diseases," giving a "zymotic death-rate" of 0·37 per thousand living, as follows :—

	NUMBER OF DEATHS.	DEATH-RATE.
Diarrhœa (under two years)	7	0·07
Diphtheria	12	0·13
Enteric Fever	1	0·01
Measles	11	0·12
Scarlet Fever	0	0·00
Smallpox	1	0·01
Whooping Cough	3	0·03

Measles and Whooping Cough

These diseases not being notifiable, our knowledge of their incidence is never so complete as with some of the other infectious diseases. For our information regarding them we rely to a great extent on the weekly returns furnished to the Medical Officer of Health by the head teachers of the public elementary schools, giving lists of suspected cases of infectious disease amongst the scholars. From these returns it would appear that neither measles nor whooping cough was very prevalent. There are always cases in every town and periodically, when sufficient susceptible material is available, there is a flare-up. There is probably some other factor besides the presence of susceptible material which determines these "waves of disease," a factor at present not understood.

The number of cases of suspected measles was 779 and eleven deaths were certified as due to measles, giving a death-rate of 0·12 per thousand living, as against 0·08 for England and Wales. Three deaths occurred from whooping cough and 265 cases were recorded in the school returns. The death-rate was 0·03, compared with 0·15 for the country.

Diarrhœa and Enteritis

There were seven deaths certified as due to diarrhœa in children under two years of age, giving a death-rate of 5·6 per thousand live births registered, compared with 8·1 for England and Wales.

It was formerly in the hot, dry summers, such as that of 1929, that infantile diarrhœa reached its height and caused so many deaths amongst young children, especially in the industrial and mining towns of the North. Various factors have been at work to prevent the high death-rate from diarrhœa, amongst which one may mention better instruction in infant feeding, for it was well known to be comparatively rare for breast-fed children to suffer from this disease. The second, and perhaps not less important, factor has been the decrease in the number of house-

flies due to the displacement of horses by motors. One has only to carry one's mind back some twenty years or so to remember the number of flies which swarmed in every house during the summer months, whereas they are now becoming curiosities in any well ordered home. Their chief breeding places nowadays seem to be refuse tips, which should be done away with.

Influenza

Northampton did not feel the effects of the influenza outbreak during the early part of 1929 to the same extent as some other districts in England. The increased general death-rate for England and Wales for 1929 over that of 1928 is attributed chiefly to deaths from influenza and its complications. As influenza is not a notifiable disease, and is one the diagnosis of which is remarkably uncertain, we do not know to what extent it prevailed in the Town. We had only thirty-two deaths attributed to influenza, which was double the number for 1928, but was not enough to cause any appreciable rise in the death-rate. Twenty of these occurred in the months of February and March. The influenza death-rate for Northampton was 0·34 and for England and Wales 0·74.

Acute Polio-myelitis

We received one notification of acute anterior poliomyelitis, occurring in a child of sixteen months. It appears to have been a mild case and was treated at home, and subsequently received out-patient treatment at the General Hospital. The result was very satisfactory.

Enterica

Nine cases (seven enteric fever and two paratyphoid B) were notified under this heading. The attack-rate for the Borough was 0·10 and for England and Wales 0·07. One subsequently proved to be a mistaken diagnosis, as the patient, a man aged twenty-six, shewed no clinical signs or symptoms of typhoid after removal to the Borough Infectious Diseases Hospital, and his blood gave a negative reaction to Dreyer's test. This leaves us with eight genuine cases, seven of which were removed to the Borough Hospital. None of them was severe. All the eight occurred in four houses abutting on The Green, Kingsthorpe, and all used water from the " Jubilee Well." Suspicion fell on this water, but in spite of repeated bacteriological and chemical examination of samples taken during normal weather and after heavy rains, we were not able to fasten responsibility for the outbreak on the Well. It was a noticeable feature of the Bacteriologist's reports that the total number of organisms per c.c. was very small. Previous to the outbreak some digging operations in connection with the laying of a sewer had been carried out on the higher land above the well and it is just possible the water became polluted for a time and afterwards cleared itself. Further reference to this matter is made in the paragraph " Polluted Well " on page 12.

One Northampton resident died in London, death being attributed, after post mortem examination, to paratyphoid B

and generalised tuberculosis. The woman in question went to London for an internal operation, not having complained of symptoms suggesting either typhoid fever or generalised tuberculosis. She worked until the night before she left Northampton. I will leave it at that. This gives a death-rate of 0·01, the same as for the country.

Erysipelas

Sixty-one notifications of erysipelas were received, which corresponds closely with the number in 1928. There were three deaths amongst these notified cases, but two of them were "outward transfers." One Northampton resident died from erysipelas while out of town and his death is counted as an "inward transfer." The two deaths give a death-rate of 0·02. The attack-rate was 0·65, compared with 0·45 for England and Wales.

Chickenpox

Owing to the continued presence of smallpox in the Town, chickenpox was retained on the list of notifiable diseases with the result we received 775 notifications (attack-rate 8·27). Practically all these were visited by a sanitary inspector and, where thought necessary, by the Medical Officer of Health. In this way we picked up fourteen cases which were undoubtedly mild smallpox. There is a considerable difference of opinion as to the desirability of making chickenpox notifiable, but I think there is no doubt as to the additional work it entails.

Vaccination

The recent outbreak of smallpox in Northampton, where the disease was present for nearly eighteen months, did little to change the vaccinal condition of the population of the Borough. Some six thousand persons of varying ages were vaccinated during 1929, but at the present time a very large proportion of the children remain unvaccinated. This fact was well illustrated owing to chickenpox being made notifiable, and in consequence the vaccinal condition of each known case was inquired into, when it was found that of the 775 notified as suffering from chickenpox only 171 (or 23·0 per cent.) had been vaccinated, after allowing for twenty-six cases not investigated and four others having previously suffered from smallpox. The parents "don't believe in it."

Smallpox

Smallpox was present in the Town at the commencement of the year and it was still with us to a very limited extent on the last day of December. There were 479 notified cases, giving an attack-rate of 5·09, compared with 0·28 for England and Wales. They occurred in every month, declining in numbers after August, as shewn below :—

January	35
February	57
March	97
April	116
May	53
June	46

July	35
August	16
September	7
October	2
November	14
December	1

On the whole the cases were mild, *i.e.*, of the type now prevalent in many parts of the country, but while this was true of the great majority, some were far removed from mild. As in the previous year, the mildness of the attacks was one of our difficulties, patients not being in many instances sufficiently ill to seek medical advice. The ages of the patients varied from twelve days to seventy-three years and 112 were schoolchildren. There was one death, giving a rate of 0·01.

Again we had to contend with the "anti" attitude with regard to vaccination, as instanced by the following episode :— A case of smallpox occurred in a house tenanted by fifteen persons, aged from two to fifty-three years, including a male lodger of twenty-three. Of these, only one was protected by recent vaccination, viz. :—the father who was vaccinated in the army during the war, the mother being vaccinated forty-six years ago. Though I begged them to be vaccinated as soon as the case was reported to us, all refused except the lodger, who took the first opportunity of carrying out my advice. Of the remaining thirteen who were unprotected and refused to be protected (either on their own account or through their parents), eight developed the disease, *i.e.*, nine in the family. They did not all contract smallpox at the same time but fell by one, two, or three at a time ; still they held out against vaccination. The lodger escaped.

A young man, aged eighteen years, unvaccinated, was notified and removed to hospital. Two days previously his unvaccinated married sister, who occupied rooms in the same house, was confined of her first baby. When the baby was eighteen days old, I was asked by the doctor in charge to see it and also the mother. At this time the baby was covered with smallpox pustules, confluent in many places. The mother had been complaining of pains in the back, etc. for a few days, but these symptoms had been referred by those in attendance to her puerperal state rather than to the possible onset of smallpox. At the time of my visit the rash was beginning to make its appearance on the face. Both were removed to the Smallpox Hospital the same afternoon and proved to be very severe cases and, though they recovered, the mother was rather badly marked.

One afternoon I was asked to go across to the School Clinic to see a boy with a suspicious rash and on doing so I found he was suffering from smallpox. The lad informed me his mother was in bed with the same sort of rash and on my going home with him, the first thing I met on entering the house was a boy with smallpox nursing a baby also suffering from it, and upstairs was the mother with a well-marked attack of the same disease. There

were actually in the house, at the time of my visit, seven persons, viz.:—the mother and six children, all suffering from smallpox, all the children of school age attending school. A seventh child was at work in a boot factory and on her return home we found she had recently suffered from smallpox, having been off work with what was thought to be influenza. Her employers were suspicious on seeing spots on her face and demanded a medical certificate before allowing her to resume work. This she readily obtained, although suffering from smallpox. She was the original case in the house and had infected her mother, brothers, and sisters, none of whom were vaccinated, and whose ages varied from thirty-five years to four months. Of the household, only the father escaped and he had been vaccinated in the army. The whole family, except the father, was removed to hospital. With regard to this family, the statements of the medical practitioner and the mother were at variance, but in any case none of them were brought to our notice by the medical attendant, who gave the certificate saying the girl, aged fourteen, was quite fit to follow her employment, when actually suffering from smallpox.

In another instance a baby developed a rash when ten days old. This was not considered to be smallpox until the unvaccinated father developed a well-marked eruption with all the usual symptoms. On examining the mother we found she had a few healed scars typical of recent smallpox, but in her case the disease had been so mild as to have passed without any medical attention, in fact she denied all knowledge of a rash when the scars were pointed out to her. She had infected the baby before birth and we afterwards ascertained that she sat beside two known smallpox patients in a doctor's surgery; the child passed on the condition to its father. All three—father, mother, and baby—were removed to hospital, where the mother was vaccinated with Government lymph; the operation was not successful, nevertheless she did not develop smallpox, though she nursed the baby all the time they were in hospital, a further proof (if any was required) that she had herself suffered from a mild attack. The brother of the male patient just mentioned developed smallpox and his rash appeared at a date to make it believable he had been infected by some member of the family, but we were assured they had not seen each other for six weeks. A little too much to expect us to believe; in other words, stressing the long arm of coincidence too far.

While speaking about believing or disbelieving statements made by patients or their friends and contacts, may I say it would be fatal to put much trust in most of the information given. It seemed to be the object of some patients and their friends to deceive and mislead the Medical Officer of Health and his staff as far as possible. It was very difficult to get information regarding patients' movements or contacts, and I am sure we seldom, if ever, received a complete list. Patients, or their relatives, could nearly always find an excuse for the prodromal

symptoms or the rash, and reasons why it should not be smallpox. In some instances they suffer from a rash in the spring or in the autumn when the leaves are falling, or they had been taking a cold bath, or the mother had been administering brimstone and treacle for a week. Again, the pain in the back and limbs could generally be explained away ; in some instances the patient had suffered from rheumatism ever since she was thirteen (an unlucky number), or she had a floating kidney, or had suffered from ague for twenty-five years, all ignoring the fact that none of these conditions (so far as I know) are associated with a rash resembling smallpox.

At least one family in Northampton seemed very well satisfied with smallpox. Both the husband and wife suffered from the usual mild attack at the same time and were in hospital for three weeks, where they were pleased with the treatment they received, as I trust the majority of our patients were. On discharge they drew ten guineas from a newspaper, being insured against this disease. This they spent on a holiday to the seaside to round off their convalescence and, as I say, they seemed to have rather pleasant recollections of smallpox.

When we examined the vaccinal condition of the 479 cases of smallpox which were notified, the following interesting state of affairs was revealed. 428 (89·4 per cent.) had never been vaccinated *up to the time of exposure to infection*. (Of this number, fifty-seven were vaccinated *after exposure* but too late to prevent the onset of the disease. It is no use being vaccinated four or five days after infection, as that is too late for the operation to be effective and it only brings vaccination into disrepute and affords a handle for the disbelievers, who are only too ready to seize on any apparent weak point in the vaccination argument).

Fifty-one (10·6 per cent.) were vaccinated ; forty-seven of these were vaccinated in infancy and bore marks resulting from the operation, their ages being as follow :—20, 34, 36, 37, 41, 43, 44 (three), 45, 47, 48 (two), 49 (two), 50 (five), 52 (three), 53 (two), 54, 55 (six), 56 (two), 58 (two), 59 (three), 61 (two), 64, 67 (two), 70, and 73 (two).

Three were said to have been vaccinated in infancy but shewed no marks. As in one of these patients the operation could not have been performed more than seventeen years ago, it is very improbable she was ever successfully vaccinated. The scars following a successful vaccination remain visible for a very long period. The other two were aged fifty-five and sixty.

One (aged thirty-six years) was vaccinated in infancy and had three good scars dating from that period. He was stated to have been re-vaccinated in 1915, but no scar was visible for this later operation.

We have knowledge of twenty-six "missed cases," *i.e.*, persons who had suffered from smallpox but had recovered before we found them, and in most instances they had given the disease to others (contacts) before we discovered them, in fact it was generally on account of their having done so that they

came to light. One of these "missed cases," a boy aged 3½ years, we believe to have given rise, directly or indirectly, to fifteen others. The vaccinal condition of the "missed cases" shewed one person, aged fifty, vaccinated in infancy; the rest had never been vaccinated.

It is not worth while entering into the argument "Does vaccination prevent smallpox?" The fact remains smallpox does not attack the recently successfully vaccinated.

None of the public health staff (medical officers, inspectors, nurses, clerks, removal and disinfecting officers, porters, maids, etc.) contracted smallpox, although repeatedly exposed to infection over a long period.

The only death ascribed to smallpox occurred in a patient aged fifty-nine years, vaccinated in infancy, four marks being visible. She was in a debilitated state on admission to hospital, having suffered for years from large foul-smelling varicose ulcers on both legs. The case was complicated by acute laryngitis.

Scarlet Fever

279 notifications of scarlet fever were received, giving a case-rate of 2·96 per thousand of the population. This is 0·54 higher than the figure for 1928, but compares favourably with the attack-rate of 3·05 for England and Wales.

Of the 185 cases removed to the Borough Isolation Hospital, twenty-three shewed no clinical signs of scarlet fever on admission, or at any time during their stay in hospital, and were therefore not considered to be suffering from that condition. The type of the disease remains mild. No deaths were registered as due to scarlet fever and in only one instance did any serious condition follow on the attack.

There appears to be a tendency towards a general rise in the prevalence of scarlet fever throughout the country, which is only to be expected after several years of more or less quiescence, for the disease has long been known to be subject to periodic waves varying in their length from five to twenty years or more. Prior to the war the wave lengths in Northampton were of about five years.

Diphtheria

There were 185 notifications of diphtheria, compared with 81 in the previous year. Seventeen cases were removed to the General Hospital as emergencies requiring, or likely to require, tracheotomy, five of which were subsequently transferred to the Borough Isolation Hospital, and 137 others were, on notification, removed to the Isolation Hospital. Of the 142 cases admitted to Harborough Road Hospital, fifteen were not considered to be suffering from diphtheria and nineteen others were only found to be bacteriological cases, *i.e.*, they shewed no sign of clinical diphtheria, although they were stated to have organisms resembling the Klebs-Loeffler bacillus in the throat or nose. Seventeen of the admissions suffered from nasal diphtheria. I cannot remember ever before seeing so much of the nasal form of the disease as occurred in Northampton during the latter part of

the year. From the foregoing remarks it will be inferred that a considerable proportion of the cases were of a mild nature, but at the same time many of those who shewed clinical signs were of a severe type, ending fatally in twelve instances, and requiring prolonged treatment in some of those who recovered.

185 notifications and twelve deaths give an attack-rate of 1·96 and a death-rate of 0·13, compared with 1·59 and 0·08 respectively for the country in general.

219 phials (810,000 units) of antitoxin for curative or preventive treatment were issued without charge to medical practitioners on application to the Public Health Department, at a cost of about £42. This is exclusive of the antitoxin used in the Isolation Hospital.

Borough Hospitals

HARBOROUGH ROAD INFECTIOUS DISEASES HOSPITAL. No additions or alterations were made to Harborough Road Hospital during the year. The electric laundry brought into operation in March has proved a great success and easily coped with all the work put upon it, including the linen from the Smallpox Hospital, at a time when the latter housed about seventy patients. The smallpox soiled linen was taken to the Disinfecting Station, St. Andrew's Road, where it was disinfected by steam under pressure, afterwards coming to Harborough Road Hospital laundry, whence it was returned clean to Hardingstone Hospital by motor. Had the new laundry not been built, it is difficult to see how the smallpox washing could have been done, for the small hand laundry at Hardingstone could never have overtaken the work. During the summer the paths at the Isolation Hospital, which had been in a very bad state for years, were completely remade, under the supervision of the Borough Engineer and Surveyor, and may be expected to last for a considerable time. Owing to the urgent call for beds for smallpox patients, it was found necessary in January to transfer the phthisis patients from Welford Road Hospital to Harborough Road, to allow the former institution to be used for smallpox until the extensions at Hardingstone could be completed. The phthisis patients returned to Welford Road Hospital on 20th December. At no time during the year was the hospital much more than half full. There appears to be ample accommodation for patients, but we sadly need extra accommodation for the nursing staff. This matter is now receiving attention. (*See* Table 13 for statistics).

WELFORD ROAD TUBERCULOSIS HOSPITAL. As stated above, Welford Road Hospital was not used for tuberculosis between 23rd January and 20th December, but was utilised as a smallpox overflow. After the last smallpox patients were discharged, the hospital was empty for a few weeks before the work of redecoration commenced. The premises were painted inside and out and several minor repairs executed. The Matron and Sister, who had been in charge for some eight years, resigned, and it was December before we could find new staff and patients could be re-admitted.

Smallpox Hospital. Early in the year it became evident that the accommodation at the Smallpox Hospital, Hardingstone, was not going to be sufficient to cope with the increasing number of patients suffering from smallpox, even when using Welford Road Hospital as an overflow. Work on the extension of the Hardingstone Hospital commenced in February, the extension taking the form of a new building properly equipped with bathrooms, kitchens, etc., to accommodate about sixty patients. While these works were in progress, a hut to accommodate twenty patients was erected in a week to tide us over until the new building was ready for occupation, which it was in April. On 15th and 20th April, we had under treatment at Hardingstone and Welford Road Hospitals, ninety-five patients. This was the high-water mark and though it was never again reached, the hospital continued to be open to the end of the year. The extensive alterations necessitated the setting back of the surrounding fence and the making of new paths. The chief deficiency in the hospital is in the lighting, which has to be carried out by means of oil lamps. There are no gas mains in the vicinity, and if the building comes to be used again on a large scale it might be advisable to consider installing electricity.

Pneumonia

258 notifications of pneumonia were received, which is in close agreement with the 266 in 1928, and 269 in 1927. The attack-rate was 2·74. Twenty-seven were reported as post-influenzal in origin and 109 as broncho-pneumonia. In addition, sixteen deaths were certified as due to pneumonia (either primary or post-influenzal) in persons not previously notified, which brought the total up to 274 known cases. The ages of the patients varied from three months to ninety-three years. Generally speaking, broncho-pneumonia is the prevalent type in children, the lobar form being the one which proves fatal in a few days' duration to robust adults.

Seventy-eight deaths were ascribed to pneumonia, of which eighteen were stated on the death certificates to have followed influenza and twenty-eight were attributed to broncho-pneumonia, leaving thirty-two for all other forms, in which the lobar type was the most prominent. The death-rate from all forms was 0·83.

As there is no sign of the disease being spread by contact, but on the contrary strong evidence against such spread, I do not see anything is gained by retaining pneumonia on the list of notifiable diseases, where it was placed by the Regulations of 1919.

Puerperal Fever

Eight notifications of puerperal fever were received. The case-rate was 0·08, compared with 0·06 for England and Wales. In addition, one death occurred from the disease in a woman not previously notified, making nine known cases. Of these nine, three were admitted to the General Hospital from out of town, but not having been previously notified in the districts where they lived they must count in our list. These reduce the Borough

figure to six. Six were doctors' cases, the remaining three occurring in the practices of midwives, and all were admitted to the General Hospital. Three of the cases terminated fatally, two of the patients being from out of town, the third being the woman whose death occurred before notification was received.

Puerperal Pyrexia

There were seven notifications of puerperal pyrexia, but one of these was certainly puerperal fever. This is a fall of six on the figure for 1928. One was an out-of-town case not previously notified. The attack-rate was 0·07, just half that for the country. Four were in doctors' practices and three in the practices of midwives. Five were treated at home, one in the General Hospital, and one, which ended fatally in 1930, in the St. Matthew's Nursing Home.

Ophthalmia Neonatorum

We received seven notifications of ophthalmia neonatorum, as against sixteen in 1928. Four were doctors' cases, two occurred in the practices of midwives, and one was an institutional case. Neisser's organism was found in four instances. Three were treated in the General Hospital, and one attended as an out-patient. One was still under treatment at the end of the year. Permanent damage to the sight was the result in one instance. One severe case was nursed at home, being attended by a Queen's nurse at the cost of the Corporation.

Venereal Diseases

130 persons resident in the Borough were treated for the first time at the Special Clinic for venereal diseases at the General Hospital, under the combined scheme worked in conjunction with the County Councils of Northamptonshire and Buckinghamshire. The new cases were classified as follow :—

CONDITION.	MALES.	FEMALES.	TOTAL.
Syphilis	26	18	44
Gonorrhœa	38	14	52
Other than Venereal	17	17	34
Totals	81	49	130

From the returns furnished by the General Hospital as part of the scheme, it appears that ten syphilis and twenty-six gonorrhœa patients, including persons under treatment at the commencement of the year, carried out the full course of treatment recommended by the specialists in charge of the Clinic.

Three syphilis and ten gonorrhœa patients ceased to attend before completion of the course and the final tests were made.

The total attendances at the out-patient clinic were 3,239 and 125 days were spent in hospital by patients.

In the treatment of syphilis, 729 doses of one or other of the approved arsenobenzene compounds were administered. In connection with the scheme, 689 specimens were examined by the Pathologist at a cost of £148 9s. 6d. ; 454 of the specimens were on behalf of the Clinic and 235 for local practitioners.

The Ministry of Health pays three-quarters of the cost of the Clinic, the object being to provide free expert advice and treatment for all sufferers in an attempt to lessen the incidence of venereal disease in the country.

Tuberculosis

The work in the Tuberculosis Department has been continued on the lines which have proved satisfactory in the past. It is pleasing to see the reduction in the number of deaths from tuberculosis has not been confined to one form of the disease, but has included both, the drop in the non-pulmonary deaths being nearly fifty per cent. on those for 1928. The death-rate from tuberculosis (all forms) for 1929 was 0·82 per thousand of the population, the lowest ever recorded in the Borough, and is considerably lower than the corresponding rate for England and Wales, viz.:—0·96. It would not be wise to assume we shall always be in this fortunate position, but the general fall, with now and again a slight rise, does lead one to believe we are making headway against this terrible scourge.

In the past there has been a feeling that the shoe trade is conducive to consumption. Personally, I could never bring myself to accept that view. Looking back over the records of the eighties of last century, when the death-rate from tuberculosis (all forms) was nearly three times what it is to-day, we find in every year of that decade Northampton's tuberculosis death-rate was below that for England and Wales. Again, if we take figures for the pulmonary form alone, Northampton's figures vary little from those for the country. Sometimes one was higher to be followed by a reversal of the order the following year. The same state of affairs is seen if we pass on to the nineties. Since the war there have been years when the Borough tuberculosis death-rate was somewhat above the general level, but on other occasions the two agreed as closely as could be expected. At the present moment, I see nothing to make one believe the shoe trade is conducive to consumption. In a town where shoemaking is the staple industry it would be strange if a considerable percentage of those suffering from phthisis were not shoe operatives. This is not to be taken as indicating we are to be satisfied with the present state of affairs, and that we may rest on our oars, so to speak. It only means that so far as tuberculosis is concerned, Northampton is not quite so black as it has been painted. We must continue with renewed efforts, if possible, to bring the death-rate still lower.

The number of notified cases of tuberculosis on the Medical Officer of Health's register now remains much the same, the new cases added each year about balancing the deaths and those removed under Circular 549. I think many persons notified years ago, *i.e.*, soon after tuberculosis became a notifiable disease, and also during the war period, were not really suffering from tuberculosis, and this was especially so in the case of children, who in my opinion rarely suffer from consumption. What one may call the ailing child is seldom a tuberculous one and very

seldom a consumptive. It is surprising how quickly these so-called consumptives get to work directly the school leaving age is reached, when we hear no more about consumption.

Another point which strikes one is the way tuberculosis sticks to a person once notified, even after deletion from the register under Circular 549 as not suffering from that disease. So much does it stick that if one of these deleted persons dies from some other condition, such as pneumonia, valvular disease of the heart, or kidney disease, tuberculosis will appear on the death certificate in addition to pneumonia, etc., when by the rules of the Registrar-General the death must be assigned to tuberculosis in spite of the patient being deleted as not suffering from it. The Registrar-General has only the information given on the death certificate (paper information) ; he has not, and cannot have, the local knowledge (if one may put it in that way) to know which of the diseases given on the certificate was the actual cause of death.

Dr. Laughton's report, which appears as Appendix I., pages 37 to 48, should be consulted for statistics and further information in connection with anti-tuberculosis measures.

Bacteriology

As in former years, the examinations in connection with the Tuberculosis Department were made at the Dispensary Laboratory, while most of the bacteriological work, including that for the Infectious Diseases Hospital and for general practitioners was performed at the laboratory in connection with the General Hospital. Amongst these examinations may be mentioned the regular examination of the Town's water supply and that of the designated milks. Owing to the increase in diphtheria during the later part of the year, there was a corresponding increase in the number of swabs sent for examination. The usual table giving particulars of the clinical bacteriology will be found in the Appendix.

Disinfection

A large amount of additional work was performed at the Disinfecting Station, St. Andrew's Road, owing to the prevalence of smallpox. At times the staff could scarcely cope with the work, as so many families wanted the bedding returning to them at once after disinfection. Some small alterations were made in the buildings in order to house the new motor ambulance. In February, a new 6 H.P. cross-tube vertical boiler, working at 80 lbs. pressure, was supplied and erected by Messrs. Manlove, Alliott & Co., Ltd., the original makers of the disinfecting apparatus.

Table 14 shews the number of articles stoved each month at the Disinfecting Station.

VI.—MATERNITY AND CHILD WELFARE.

General Remarks

The ninth annual report of the Assistant Medical Officer on the work performed in connection with maternity and child welfare in the Borough will be found in Appendix II., pages 49 to 61.

The report follows the usual lines of its predecessors and gives particulars concerning infant mortality, the working of the Births Act, the welfare centres, and the supervision of midwives. The milk supply for necessitous mothers and infants and the dental work done in connection with the Department and the help rendered by the Voluntary Association are also reviewed.

Infant Mortality

The infantile death-rate of 52·8 is the lowest recorded in the Borough with the exception of 52·2 in 1922 and 52·1 in 1924, and compares favourably with the corresponding figure of 74·0 for England and Wales. The greatest advance in preventive medicine in this country during the past thirty years has been in the preservation of infantile life, and much as we may desire, it is doubtful if we shall advance much farther in this direction for some little time. It is not possible to put a finger on any one factor and say this is the cause of the fall in infant mortality. There are so many agencies at work, viz. :—better education and housing, shorter hours of labour, more attention to the cleanliness of food for infants, the work of the infant welfare bodies, and last, but perhaps not least, the reduction of flies due to a large extent to mechanical transport having displaced horses. All these factors have played a part in saving the lives of infants.

Premature Births

Prematurity again takes first place as the cause of death during the first year of life and the further reduction in the infantile death-rate is largely a matter of preventing premature births. This being so, the value of pre-natal work cannot very well be over-estimated.

Artificial Sunlight

The treatment by artificial sunshine carried out at the Infant Welfare Clinic, Dychurch Lane, was interrupted for some months owing to the loss of the lamp when Dr. Emily H. Shaw resigned, the lamp being her private property. Owing to the generosity of Mr. and Mrs. A. R. Cleaver, this loss was made good by the presentation to the Voluntary Association of a new Hanovia Alpine Sun Lamp. It may not be out of place to sound a word of warning against expecting too much from the use of ultra-violet rays. This form of treatment cannot perform miracles, but from the claims made for it, miracles would seem to be easy of accomplishment. To quote a local advertisement, it has been found to possess limitless possibilities as a curative agent in some twenty conditions depending upon entirely different causes. When one remembers it is claimed ultra-violet rays

enable actresses to dance longer hours, footballers to score more goals, old thrombosed varicose veins to function again, hair to grow on bald patches, persons to gain or lose weight at will, to say nothing of the cure of rickets and ischio-rectal abscess by one exhibition, infantile paralysis and dyspepsia and deafness to disappear, plain folks may be forgiven if they ask the simple question, "Does it do any one of the things claimed for it?"

Manfield Ortho-pædic Hospital

Good use has been made of the beds at Manfield Hospital retained by the Maternity and Child Welfare Committee. These beds are only paid for when occupied by a child recommended to and approved by the Committee. In some instances the Corporation pays the whole of the maintenance fees, but in most cases the parents are able to make some contribution towards the cost. The children are kept under observation by the Department after discharge from hospital.

Maternity Homes

At the end of the year there were eight nursing homes on the register. Four of these were maternity homes only, including the St. Saviour's Home for Mothers and Babies. They were all inspected at intervals by Dr. Bebbington, acting in her capacity as Inspector of Midwives and Inspector of Nursing Homes. As stated in former reports, there is no municipal maternity home in Northampton, the Corporation having an arrangement with the General Hospital for the admission of maternity cases recommended by the Assistant Medical Officer and approved by her Committee. The scheme works satisfactorily.

Maternal Mortality

According to statistics, there has been no such fall in maternal mortality as in infant mortality in the country during the last thirty years, in fact it would be difficult to detect any appreciable drop in the maternal death-rate, which has been round about four per thousand live births for many years. Last year the rate for Northampton was 3·20 and for England and Wales 4·33. These deaths fall into two distinct categories, viz. :—those due to puerperal sepsis (Group 146 in the Detailed International List of Causes of Death) and those due to other accidents and diseases of pregnancy and parturition (Groups 143—145). When we consider that four mothers in every thousand suffer the death penalty in the performance of their natural functions, it is at once realised that motherhood is the most hazardous of all occupations, quite outstripping that of colliers, where one thousand workers (in all sections of the work) only account for a little over one death per annum. So much impressed is the country by the continued high mortality that the Ministry of Health has ordered a most exhaustive inquiry into every maternal death, the findings to be forwarded to a special committee set up to deal with the matter. It is hoped by this means to throw light on the cause or causes of these disasters. Of course, it has long been recognised that puerperal sepsis, like other surgical infections, is due to bacteria, but that is not all the story. Why does it

occur where every reasonable care appears to have been taken, and why is it not more common where, owing to social conditions, etc., such care and preparation cannot be taken? In other words, it does not appear to occur relatively any more frequently amongst the very poor than amongst the middle class. There seems to be some factor which we do not yet understand. As regards the second group of causes of maternal deaths—accidents, etc. connected with pregnancy—it is hoped and believed these will become more rare as ante-natal work is increased and extended.

Nothing in these remarks is to be taken as an excuse for slackness or negligence regarding surgical cleanliness. On the contrary, until we have more precise knowledge as to the mode of infection, and why some cases become infected when every precaution seems to have been taken and others escape when infection might not have caused much surprise, renewed efforts must be made by all persons concerned to reduce the chances of puerperal sepsis to a minimum.

VII.—HOUSING.

Housing Schemes

The Borough Engineer has again supplied the Department with particulars of the work done under the municipal housing schemes :—

Total number of houses completed between 1st January and 31st December, 1929, under the Corporation Schemes	289
Number of these within the Borough boundary	289
Erected by the Corporation both within and without the Borough up to 31st December, 1929 :—	
Houses	2,426
Shops and houses	30
Hutments	14

Other New Buildings

In addition to the above, the following building operations, plans for which had been approved by the Highways Committee, were carried out during the year :—

New houses—Subsidy 74 ; Non-subsidy 63	137
Additions to houses	20
Shops and houses	4
Lock-up shops	5
New shop fronts	26
Additions to shops	2
Shop premises and warehouse reconstruction	4
Homesteads (Methodist)	12
Homesteads (Bethany)	3
Nursing home (Bethany Homestead)	1
Assembly room (Bethany Homestead)	1
Factories	3
Additions to factories	9
Public houses	2

Alterations and additions to public houses	20
Private school	1
Office buildings	5
Extensions to General Hospital	2
Extension to theatre	1
Garages and motor houses	55
Sheds	26
Conveniences and water closets	12
Temporary licensed buildings	9

Housing Acts

No slum clearance on a large scale was started during the year. When the new destructor works at West Bridge are in full working order and we are able to dispense with the old destructor in Bath Street, a large area will be available for the erection of a small type of house somewhat similar to those built by the Corporation in Court Road. It is all very well to build expensive semi-detached houses a few to the acre on the outskirts of the Town, but many families will never be able to pay the rent asked for them, together with travelling expenses to and from their work. I have in mind a labourer with an income of forty-five shillings per week and a large family, living in overcrowded conditions, who was ordered to abate the overcrowding. On applying for a Corporation house, he was offered one at fifteen shillings per week, on condition he found a guarantor who would be responsible for the rent. Needless to say, such a philanthropist was not forthcoming and the family remains "as you were." Such families cannot hope to live in new property, the rents being too high for the required accommodation; they are condemned to live in a larger type of house which has seen better days, if they are not to exist in overcrowded conditions. The building of semi-detached or small blocks of four or six houses not more than twelve to the acre, instead of long rows, is one of the causes of the high cost of building and consequent high rents. It is not suggested the family cited above could be accommodated in the smaller type of house proposed, but small families could be, and would be thankful to have them.

Tables 16 and 17 contain particulars of houses represented in this and previous years. It will be seen that eight houses were represented in 1929 and seven closing orders and twenty-nine demolition orders made by the Town Council. Thirty-four houses were demolished in pursuance of demolition orders, and one house on which a closing order had been made was rendered fit for habitation and the order determined. On 31st December, eleven houses subject to closing orders were still occupied.

No action was taken under Section 3 of the Housing Act, 1925.

The staff made ninety-seven visits of inspection under the Housing Consolidated Regulations, 1925, and in these defects were found in seventy-six, chiefly want of cleanliness and repairs.

Four houses, or parts of houses, were certified by the Medical Officer of Health under the terms of Section 46 of the Public Health Act, 1875, as being in such a filthy or unwholesome condition that the health of the occupants was affected or endangered thereby, and that the cleansing and whitewashing were urgently required. **Public Health Acts**

It was not necessary to resort to legal action to bring about the abatement of any nuisance. Less severe measures were always effective. **Prosecutions**

The particulars for 1929 are set out below in the form required by the Ministry of Health. **Housing Statistics**

Number of New Houses erected :—

(*a*) Total (including numbers given separately under (*b*))	426
(*b*) With State assistance under the Housing Acts :—	
(i) By the Local Authority	289
(ii) By other bodies or persons	74

1.—*Inspection of Dwellinghouses.*

(1) Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts)	2,673
(2) Number of dwellinghouses (included under sub-head (1) above) inspected and recorded under the Housing Consolidated Regulations, 1925	97
(3) Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	8
(4) Number of dwellinghouses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	1,007

2.—*Remedy of Defects without Service of Formal Notices.*

Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers	690

3.—*Action under Statutory Powers.*

A.—Proceedings under Section 3 of the Housing Act, 1925 :—

(1) Number of dwellinghouses in respect of which notices were served requiring repairs	0
(2) Number of dwellinghouses rendered fit after service of formal notices :—	
(*a*) By owners	0
(*b*) By Local Authority in default of owners	0
(3) Number of dwellinghouses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	0

B.—Proceedings under Public Health Acts :—

(1) Number of dwellinghouses in respect of which notices were served requiring defects to be remedied	310
(2) Number of dwellinghouses in which defects were remedied after service of formal notices :—	
(*a*) By owners	370
(*b*) By Local Authority in default of owners	0

C.—Proceedings under Sections 11, 14, and 15 of the Housing Act, 1925 :—

(1) Number of representations made with a view to the making of Closing Orders	8
(2) Number of dwellinghouses in respect of which Closing Orders were made	7
(3) Number of dwellinghouses in respect of which Closing Orders were determined, the houses having been rendered fit	1
(4) Number of dwellinghouses in respect of which Demolition Orders were made	29
(5) Number of dwellinghouses demolished in pursuance of Demolition Orders	34

See Appendix III. (page 62) for the usual statistical tables.

APPENDIX I.

REPORT OF THE CLINICAL TUBERCULOSIS OFFICER FOR THE YEAR 1929.

TUBERCULOSIS DISPENSARY,
MARCH, 1930.

To the Medical Officer of Health and Chief Tuberculosis Officer.

SIR,

I beg to submit herewith my report on the anti-tuberculosis scheme for the year 1929.

Your obedient Servant,

N. B. LAUGHTON.

Notifications

136 cases of tuberculosis (all forms) were notified to the Medical Officer of Health during 1929, and of these 119 were pulmonary cases. The corresponding figures for the previous year were 151 and 109. The decrease in notifications thus occurred in non-pulmonary cases, there being 17 last year as compared with 42 the year before. Particulars with regard to the site of the disease and the age periods of those notified are given in Tables T1 and T8 respectively.

Deaths

Below are tabulated the number of deaths and the death-rates from tuberculosis for 1929. The corresponding data for 1927 and 1928 are given for comparison :—

FORM.	1927.		1928.		1929.	
	NO.	RATE.	NO.	RATE.	NO.	RATE.
Respiratory	101	1·08	86	0·91	69	0·73
Other Forms ...	19	0·20	14	0·15	8	0·09
Totals	120	1·28	100	1·06	77	0·82

It is very satisfactory to note a drop in the mortality-rate from 1·06 to 0·82 per thousand of the population. This is the lowest figure ever recorded in Northampton. Welcome as is a 20 per cent. drop in the death-rate, one must not be too optimistic, however, in expecting it to continue to decline at the same pace, especially as the decrease for 1928 was also considerable.

Revision of Register

Under the instructions issued by the Ministry of Health in 1924 (Circular 549) for the deletion of cases from the register, the names of thirty-six notified persons were removed in 1929, made up as follows :—

(*a*) Twenty in which the diagnosis had not been established, and

(*b*) Sixteen in which the patient had attained a condition which might be regarded as a cure.

Particulars of cases thought to be suitable for deletion were submitted to the Medical Officer of Health, who obtained the assent of the practitioner notifying or at present in charge, where possible.

On 31st December there were 532 cases on the Medical Officer of Health's register, 371 being pulmonary and 161 non-pulmonary.

Park Workers

At the end of 1929, nine men and three women were employed under the scheme for tuberculous patients. With only one or two exceptions they were able to continue at their work throughout the year.

Early Notification

One is constantly impressed by the great part played by two factors in the incidence of, and mortality from, tuberculosis. These are (1) late notification, and (2) ineffective isolation of sputum-positive cases. It is towards the control of these that one's efforts are mainly directed.

The question of delay in notification and its results was dealt with at length in last year's report, and need not be repeated. Reference may be made, however, to Table T2, which gives the duration of illness of cases notified in 1929. The figures obtained are based on clinical evidence on examination and on the personal history in each case. It will be found that 68 out of 105 cases, or roughly 65 per cent., give evidence of having had the disease for a year or more before notification. Largely as a result of this we find (Table T5) that 44 out of 69, *i.e.*, nearly 64 per cent., of the deaths from pulmonary tuberculosis occurring in 1929, were cases notified less than twelve months previously.

I am still of the opinion, for reasons given in last year's report, that x-ray facilities at the Dispensary would be an invaluable aid in the diagnosis and investigation of cases.

Effective Isolation

The importance of effective isolation can be illustrated by a few facts. It may be truly said that a case with tubercle bacilli in the sputum can so conduct his home life that he is not a source of danger to those around him, but in practice this rarely holds. Investigation discloses (*see* Table T4) that 60 per cent. of pulmonary cases at home are found without bedroom isolation. Again, when we review the notified cases which are considered definitely tuberculous and shew reliable family histories, it is found that almost 45 per cent. of these give evidence of home infection. Cases have occurred in which mothers with acute

pulmonary disease have refused hospital treatment and isolation, and their young children now shew marked glandular infection of the neck; in the case of one baby the glands have broken down and there is extensive scarring.

Refusal to accept institutional treatment often occurs where the worst home conditions exist. Early (and consequently the most hopeful) cases often feel so well that sanatorium treatment appears to them unnecessary; advanced cases, on the other hand, sometimes feel so ill that they do not want to leave home. The public in general seems to be more concerned with the fact of the presence, or absence, of tuberculosis in the family than with the necessity of taking fully effective steps towards the prevention of its spread. This fatalistic attitude is particularly disastrous in a disease like tuberculosis; its very chronicity masks the seriousness of its ultimate results.

Treatment by Ultra-violet Light

Eighteen cases of non-pulmonary tuberculosis received treatment by ultra-violet light for varying periods at the General Hospital, and the subjoined table gives the results :—

LESION.	NUMBER TREATED.	RESULTS.		
		Improved.	Not Improved.	Worse.
Abdomen	6	4	2	—
Cervical Glands...	4	3	1	—
Skin Conditions	4	3	1	—
Bone Sinuses (discharging)	3	3	—	—
Other Lesions ...	1	1	—	—
Totals	18	14	4	—

Though the number selected for treatment is small, the results are comparable to those generally obtained elsewhere. In other words, ultra-violet light is found of great value in the treatment of certain cases which are intractable to other methods. The plant is economical to install, and the running cost per head is very small indeed.

It would be a great advantage to have an installation at the Dispensary, where the treatment could be incorporated with the work of individual supervision, and controlled throughout its course. At the present time, however, this does not seem possible on the score of time, as owing to that occupied by school work there is no opportunity for holding two sessions per week necessary for light treatment.

Tuberculosis Dispensary

Attendances :—

Total number of attendances of patients, etc. 1,271

Number of patients, etc. attending :—

Males	263	509
Females	246	

164 examinations of " contacts " were made, and of the 115 individuals examined five were subsequently notified. 134 examinations were made at the request of general practitioners for diagnosis, and of the eighty-one persons examined, sixteen were subsequently notified. These figures are included in the above totals.

The average number of attendances per patient was 2·5.

In addition to examinations at the Dispensary, the Tuberculosis Officer made 211 visits to the homes of patients, either at the request, or with the permission, of general practitioners.

The visits made by the nurse from the Dispensary were :—

Number of investigations after notification in the case of :—

Pulmonary Tuberculosis	117	
Other Forms of Tuberculosis	15	140
Deaths from Tuberculosis	8	
Re-visits, etc.		1,464
Total		1,604

The following is a summary of the work done at the bacteriological laboratory attached to the Dispensary :—

SPUTUM, URINE, ETC. EXAMINED.			
NUMBER OF SUSPECTED CASES.	REPORTS MADE.		
	POSITIVE.	NEGATIVE.	TOTAL.
399	118	418	536

Welford Road Tuberculosis Hospital

Owing to the incidence of smallpox it was found necessary to utilise the hospital for accommodation of smallpox patients early in the year. The tuberculosis patients were accordingly transferred to wards in Harborough Road Hospital on 23rd January, and remained there until 20th December. Before their return, repairs and repainting were carried out at Welford Road Hospital.

The Matron, Miss Whitehouse, and also Sister Gates, resigned in August. The new Matron, Miss Stone, took up her duties on 23rd November.

The following are the statistics for 1929 :—

	MALES.	FEMALES.	TOTAL.
Remaining at end of 1928 ...	4	4	8
Admitted during 1929	27	22	49
Discharged during 1929	21	18	39
Died during 1929	4	4	8
Remaining at end of 1929 ...	6	4	10

Of the forty-nine cases admitted, twenty-nine were insured persons. Forty-six were admitted for isolation and treatment, and three for observation.

Condition on discharge :—

Quiescent	2
Improved	23
In Statu Quo	9
Declining	2
Non-tuberculous	3

In view of the fact that the patients treated were hospital (as distinct from sanatorium) cases, it is satisfactory to note that of the tuberculous patients discharged, 69·4 per cent. were quiescent or improved. The corresponding figure for 1928 was 57·8 per cent. Another satisfactory feature was that nine of those discharged were sent to Creaton Sanatorium, having progressed so well as to be fit to undergo the further stages of sanatorium routine. Seven of these had shewn marked improvement at the time of transfer.

Creaton Sanatorium

	MALES.	FEMALES.	TOTAL.
Remaining at end of 1928 ...	7	8	15
Admitted during 1929	17	16	33
Discharged during 1929	15	20	35
Remaining at end of 1929 ...	9	4	13

Condition on discharge :—

Quiescent	10
Improved	21
In Statu Quo	4

The beds at Creaton Sanatorium were made good use of throughout the year. It will be seen that all but four of the patients (*i.e.*, 88·6 per cent.) were classified as improved or quiescent on discharge. Such good results speak well for the treatment of the disease in its early stages.

Manfield Orthopædic Hospital

	MALES.	FEMALES.	TOTAL.
Remaining at end of 1928 ...	7	7	14
Admitted during 1929	2	2	4
Discharged during 1929	2	4	6
Remaining at end of 1929 ...	7	5	12

Condition of patients discharged :—

Disease Arrested	1
Quiescent	2
Improved	2
Not Improved	1

Other Institutions

	MALES.	FEMALES.	TOTAL.
Remaining at end of 1928 ...	2	—	2
Admitted during 1929	1	—	1
Discharged during 1929	2	—	2
Remaining at end of 1929 ...	1	—	1

In the treatment of these cases the following institutions were made use of :—

Royal National Orthopædic Hospital (Country Branch), Brockley Hill, Stanmore ;
North Wales Sanatorium, Denbigh ; and
St. Anthony's Hospital, Cheam, Surrey.

The immediate results of treatment at these instiutions were :—

Improved 2

In addition, one went privately to the Royal National Hospital, Ventnor ; one to the Cambridgeshire Tuberculosis Colony, Papworth ; one to King Edward VII. Sanatorium, Midhurst ; one to Preston Hall, Aylesford, Kent ; and one to Creaton Sanatorium.

Public Health Act, 1925

There was no case of compulsory removal to hospital under Section 62 of this Act.

Public Health (Prevention of Tuberculosis) Regulations, 1925

It was not necessary to take any action under these Regulations, which deal with tuberculous employees in the milk trade.

Table T1 Northampton, 1929.

Tuberculosis. Classification of New Cases.

Classification.	Notified Cases.			Deaths of Cases not Notified.		
	M.	F.	Total.	M.	F.	Total.
Pulmonary :—						
Lung and Pleura	50	68	118	3	—	3
Larynx	1	—	1	—	—	—
	51	68	119*	3	—	3*
Meninges and Brain	—	1	1	3	1	4
Peritoneum and Intestines ...	2	2	4	—	1	1
Spinal Column	1	—	1	—	—	—
Joints	—	1	1	—	—	—
Cervical Glands	5	2	7	—	—	—
Other Organs	1	2	3	—	—	—
Totals	60	76	136	6	2	8

*A total of 122 fresh instances of pulmonary tuberculosis.

Table T2. Northampton, 1929.

Pulmonary Tuberculosis Investigations. Duration of Illness.

Period.	Notified Cases.	Deaths of Cases not Notified.	Total.
Under 6 months	18	1	19
Over 6 months and under 1 year	18	—	18
Over 1 year and under 2 years ...	29	1	30
Over 2 years and under 3 years ...	11	—	11
Over 3 years and under 4 years ...	6	—	6
Over 4 years and under 5 years ...	8	—	8
Over 5 years	12	1	13
Unascertained	17	—	17
Totals	119	3	122

Table T3. Northampton, 1929

Pulmonary Tuberculosis Investigations. Sex and State.

	MALES.	FEMALES.	TOTAL.
Single	26	29	55
Married	26	27	53
Widowed	2	7	9
Unascertained	—	5	5
Totals	54	68	122

Table T4. Northampton, 1929.

Pulmonary Tuberculosis Investigations. Degree of Home Isolation Found.

	MALES.	FEMALES.	TOTAL.
Number having separate Bedrooms	22	20	42
Number having separate Beds (only)	3	8	11
Number having no Isolation	23	29	52
Number in Institutions	3	9	12
Unascertained	3	2	5
Totals	54	68	122

Table T5. Northampton, 1929

Tuberculosis Deaths. Period elapsing between Notification and Death.

PERIOD BETWEEN NOTIFICATION AND DEATH.	MALES.	FEMALES.	TOTAL.
(1) Pulmonary Tuberculosis :—			
Not notified	3	—	3
One month	6	7	13
1—6 months	7	11	18
6—12 months	5	5	10
12—18 months	2	2	4
18—24 months	4	—	4
2—3 years	—	3	3
3—4 years	5	1	6
4—5 years	1	1	2
5 years and over	4	2	6
Totals	37	32	69
(2) Tuberculosis other than Pulmonary :—			
Not notified	3	2	5
One month	—	1	1
1—6 months	1	—	1
6—12 months	—	1	1
Totals	4	4	8

Table T6. Northampton, 1929.

Pulmonary Tuberculosis. Occupational Incidence and Mortality.

OCCUPATION.	New Cases.	Deaths Registd.
Shoe Operatives:—		
(*a*) Clicker	6	6
(*b*) Laster	9	1
(*c*) Finisher	4	5
(*d*) Roughstuff and Pressman	—	1
(*e*) Warehouse and General	9	8
(*f*) Female Worker	16	3
	44	24
Army Pensioner	1	2
Blouse Machinist	1	—
Bricklayer	1	—
Butler	1	—
Cabinet Maker	1	—
Carpenter	1	1
Celluloid Worker	1	—
Chemist's Assistant	—	1
Clerk	5	2
Club Secretary	1	1
Commercial Traveller	—	1
Corporation Foreman	1	—
Domestic Servant	4	1
Dressmaker	2	1
Dry Cleaner's Assistant	—	1
Engineer	1	1
Greengrocer	1	—
Hawker	2	1
Housewife	25	19
Joiner	—	1
Labourer	3	—
Laundry-hand	2	—
Leather Dresser	1	1
Licensed Victualler	1	—
Linesman (G.P.O.)	1	—
Marine Sorter	1	—
Mechanic (Sewing Machine)	1	—
Millwright	1	—
Motor Driver	1	—
Newsagent	1	—
Nursemaid	—	1
Porter	1	1
Schoolchild	1	1
Shirt Maker	1	1
Shop Assistant	1	—
Shop Keeper	2	1
Tram Conductor	1	—
Waitress	1	—
Warehouseman	1	1
Window Cleaner	—	1
Woodworking Machinist	1	1
No Occupation	4	2
Not Ascertained	2	1
Totals	122	69

Table T7. Northampton, 1929.

Pulmonary Tuberculosis. Disposal of Notified Cases.

CLASSIFICATION.	NUMBER.	PER CENT.
Received Residential Treatment :—	65	54·6
At Creaton Sanatorium 18		
Welford Road Hospital (or Harbough Road Hospital) 25		
Both Creaton Sanatorium and Welford Road Hospital (or Harborough Road Hospital) 10		
Union Infirmary 6		
General Hospital 4		
St. Anthony's Hospital, Cheam, Surrey ... 1		
King Edward VII. Sanatorium, Midhurst... 1		
Refused Residential Treatment :—	25	21·0
At Creaton Sanatorium 0		
Welford Road Hospital 4		
Any Residential Institution 21		
Too ill for removal	8	6·7
Not suitable for Residential Treatment	7	6·0
Residential Treatment not considered necessary...	9	7·6
Not seen (at request of doctor or patient)	4	3·3
Dead on receipt of notification	1	0·8
Totals	119	100·0

Table T8. Northampton, 1929.

Tuberculosis. Age Groups for New Cases and Deaths.

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0–1 years	—	—	—	1	—	—	—	—
1–5	—	1	3	—	—	—	2	—
5–10	—	—	1	—	—	—	—	—
10–15	—	1	1	1	—	1	—	2
15–20	11	6	4	3	3	4	1	1
20–25	5	14	1	1	6	3	—	—
25–35	10	20	1	3	5	15	—	1
35–45	8	13	—	1	8	4	—	—
45–55	8	8	1	—	7	4	1	—
55–65	10	2	—	—	7	—	—	—
65 and upwards	2	3	—	—	1	1	—	—
Totals	54	68	12	10	37	32	4	4

See also remarks of Medical Officer of Health on pages 29 and 30.

APPENDIX II.

REPORT OF THE ASSISTANT MEDICAL OFFICER FOR MATERNITY AND CHILD WELFARE FOR THE YEAR 1929.

To the Medical Officer of Health.

SIR,

I beg to submit herewith my report on the maternity and child welfare work in the Borough for the year 1929.

Your obedient Servant,

E. F. BEBBINGTON.

INFANT WELFARE CENTRE,
DYCHURCH LANE,
MARCH, 1930.

General Arrangements

The general arrangements remain as before. There is still one Assistant Medical Officer, four health visitors, and one clerk whose whole time is occupied with work connected with maternity and child welfare.

During the year a motion was brought forward and passed to install a further health visitor, but this appointment has not yet been made.

Infant Mortality

The number of infant deaths registered is the lowest recorded and is four less than in 1928. The infant mortality-rate is 52·8. From Table M. & C. W. 2 it will be seen that this is 21·2 below that for England and Wales and 0·7 below that recorded for the Borough in 1928. On only two occasions has the Northampton rate been lower, viz. :—52·2 in 1922 and 52·1 in 1924. Sixty-six children died before reaching the age of one year. Amongst those were six illegitimates, all males.

The greatest number of infant deaths is attributed, as usual, to prematurity (*see* Table M. & C. W. 1). This figure shews a decrease of five on the number for 1928.

In 1928 the health visitors visited forty-four live premature babies. Nineteen (43·2 per cent.) of these died. The corresponding figures for the year 1929 are forty-two, of which twenty-four (57·1 per cent.) died, twenty as a direct result of prematurity. Of the other four, one died at the age of two weeks from convulsions, one at two hours from atelectasis, one at eight days from acute gastritis, and one twin at six weeks from bronchitis.

Of the sixty-six babies who died, thirty-eight lived under four weeks ; thirty-four of them under two weeks and four over two and under four weeks. Of the thirty-four who died under two weeks, seventeen were girls and seventeen boys. Of these thirty-four also, nineteen were premature, one was a premature twin, and two were illegitimate. Of the four who died over two and under four weeks, one was a girl and the other three were boys. Of these four also, three were premature. Of the twenty-eight who died between four weeks and one year, fourteen were girls and fourteen were boys. One was premature, one was a twin, and four were illegitimate.

There is a slight increase in the number of babies who lived under four weeks. Of the sixty-six who died, two were certified as having died from congenital pyloric stenosis and two from atelectasis.

Notification of Births

The birth-rate in Northampton for the year 1929 is 13·3. This is the lowest ever reached and lower than that for England and Wales, which is 16·3.

1,249 live births and forty-eight stillbirths were registered. 1,278 live births and forty-eight stillbirths were notified (*see* Table M. & C.W. 3). Table M. & C.W. 4 shews the sources of notification.

1,184 births were investigated by the health visitors (*see* Table M. & C.W. 5) ; thirty-three of these were not notified. 175 notified and four non-notified were not visited by the health visitors. In all of these cases the births either occurred in larger houses or the mothers, resident in the County came into maternity homes for their confinements and later returned to their own residences. Amongst the births visited, twenty-five resulted in twins, so that the number 1,184 represents 1,159 separate confinements. The year 1929 may be said to have been a twin year. 455 live and fifteen stillborn babies were born of primiparæ.

Sixty babies were born prematurely. Twenty-three of these were first babies (seventeen live and six stillborn), and thirty-seven (twenty-seven live and ten stillborn) were the children of multiparæ. This number, sixty, includes four sets of twins.

Stillbirths

The number of stillbirths notified was forty-eight. Thirty-one of these were investigated by the health visitors, who also visited three of the non-notified stillbirths. Fifteen of the investigated stillbirths were first babies, who normally have a higher rate of mortality. The following table classifies the causes :—

PREMATURE BIRTH 6

Causes of Stillbirth :—

(*a*) Prematurity 2
(*b*) Ante-partum Hæmorrhage 1
(*c*) Prolonged Labour 1
(*d*) Cause Unknown 2

FULL TERM INSTRUMENTAL LABOUR 5
Causes of Stillbirth :—
(*a*) Difficult Labour 2
(*b*) Breech 1
(*c*) Prolonged Labour 1
(*d*) Fall 1

FULL TERM NON-INSTRUMENTAL LABOUR 4
Causes of Stillbirth :—
(*a*) Malposition of Fœtus (Breech) 2
(*b*) Twin Pregnancy 1
(*c*) Cause Unknown 1

The health visitors also visited nineteen stillborn in multiparæ. The following were the causes :—
PREMATURE BIRTH 10
Causes of Stillbirth :—
(*a*) Prematurity 1
(*b*) Cord round Neck 1
(*c*) Ante-partum Hæmorrhage 2
(*d*) Placenta Prævia 1
(*e*) Difficult Labour 1
(*f*) Cause Unknown 3
(*g*) Smallpox 1

FULL TERM INSTRUMENTAL LABOUR 2
Causes of Stillbirth :—
(*a*) Ante-partum Hæmorrhage 1
(*b*) Difficult Labour 1

FULL TERM NON-INSTRUMENTAL LABOUR 7
Causes of Stillbirth :—
(*a*) Ante-partum Hæmorrhage 1
(*b*) Cause Unknown 4
(*c*) Breech 2

NOTE.—Thirteen of above multiparæ had previously had none stillborn, four had had one stillbirth, one had had two stillbirths, and one had had three stillbirths in all.

Home Visitation

Visits to Expectant Mothers :—	
First Visits	195
Total Visits	747
Visits to Infants under One Year of Age :—	
First Visits	1,131
Total Visits	7,701
Visits to Children from One to Five Years of Age :—	
Total Visits	8,669

The health visitors paid 18,047 visits in 1929. This number is slightly lower than that of last year, on account of the fact that the distances to be traversed by the nurses are greater owing to the rapid growth of new estates, and also on account of the attendance of one of the nurses, for at least a fortnight, during the smallpox epidemic at the Smallpox Hospital at Hardingstone. A confinement occurred there which necessitated the attendance of both the Assistant Medical Officer and a health visitor, and two babies, each a few days old, were admitted, and these and their mothers needed the attention of a trained midwife. Then again, owing to the increased number of patients attending the Pre-natal Clinics on Wednesday mornings, the session for the Clinic was extended, hence no home visiting was possible on these mornings for the nurse on duty at the Clinic.

This number (18,047) includes all the visits enumerated above and also extra ones, viz. :—visits to houses where a still-birth had occurred or a baby under one year had died, and visits to all notified cases of puerperal fever, puerperal pyrexia, ophthalmia neonatorum, pneumonia, etc. in women and children.

Sunshine Treatment

The ultra-violet ray treatment was resumed in July, 1929, with a new Hanovia Alpine Sun Lamp, the gift of Mr. and Mrs. A. R. Cleaver, to the Voluntary Association. All the accessories for this lamp—goggles, timer, etc.—were kindly provided by the donor.

Five children were treated with the rays from July to December. Treatment was discontinued in August owing to holidays, thus children only attended during four full months. Two children who commenced treatment at the beginning when the new lamp was installed, continued their treatment until February, 1930 ; the others are still under treatment at the time of reporting. Owing to the fact that a new lamp is very powerful, exposures had to be proceeded with very gradually at first and there was even a forced interruption in treatment from time to time in certain of the cases on this account. All the children, who suffered from anæmia, rickets, debility, tuberculous glands, etc., shewed marked improvement at the end of treatment. The greatest difference was noted in the mentality of the children ; whining and irritability disappeared rapidly after the first few exposures.

Manfield Orthopædic Hospital

Four beds are maintained, when occupied, at the Manfield Orthopædic Hospital by the Maternity and Child Welfare Committee for non-tuberculous children under school age recommended by the Medical Officer of Health and the Assistant Medical Officer. The children admitted are suffering from bone diseases—chiefly rickets—or congenital malformations of bone.

Each bed, when occupied, costs the Committee £2 12s. 6d. per week. The parents of the children are required, by a scale adopted during the year, to pay in proportion to their income. This scale is identical with that adopted by the Education

Committee for similar cases. When a recommended case has been brought before the Maternity and Child Welfare Committee, bills are issued and payments made by instalments at the Office in Dychurch Lane.

Seven children were admitted to the hospital during the year. All these, and two from the previous year, were under treatment during 1929. Six were discharged, the average length of stay in hospital being 145 days. Three were still under treatment at the end of the year. Five were suffering from defects due to rickets. Four had congenital malformations viz.:—two congenital hips and two congenital club feet. All children discharged were required to attend an out-patient clinic for observation for a certain time after they returned home.

Welfare Centres

As usual, Table M. & C.W. 6 gives the number of attendances and consultations at the eight centres in the Town. There is a slight alteration in the number of mothers and children attending the centres. The total average attendance in 1928 of mothers was 362, of babies and toddlers 421, and of consultations 308. In 1929 the corresponding figures were 382, 430, and 331. Classes were held in cooking and sewing. The ladies of the Northampton Maternity and Infant Welfare Voluntary Association continue to do their good work on the social side. They gained second place in the competition for the Lady Astor Challenge Shield. It will be remembered that the Lord Astor Challenge Shield was won by them three times in succession and is now the property of the Association.

Midwives

Twenty-three midwives notified their intention to practise. The Queen's Institute of District Nursing employed five of these at different times and three were attached to the Poor Law Institution. Only one bona-fide midwife takes cases regularly. The Assistant Medical Officer, who is also Inspector of Midwives, paid forty-three routine visits of inspection and twelve special visits to the midwives. The notifications received from midwives are given in Table M. & C. W. 7.

The Queen Victoria Nurses attended 395 cases during the year.

Maternity Homes

Five new nursing homes were registered. One of these only is a maternity home, the others are for aged and convalescent patients. One of the latter was registered twice owing to change of address during the year. Thirty visits of inspection have been paid to these and existing nursing homes, of which there are now eight altogether in the Town. One nursing home has been closed owing to change of address; re-registration was not applied for. Four of the eight nursing homes are maternity homes alone. One only, St. Matthew's Nursing Home, is registered for maternity, medical, and surgical cases.

Pre-natal Work

Forty-three ante-natal clinics were held at the Central Building. These were attended by 454 patients. The corresponding figures for 1928 are thirty-nine and 187. In addition to this, owing to the larger average number of patients per session, the duration of each clinic has been extended. Doctors and midwives are encouraged to send their patients and in each case a report is sent to the doctor or midwife concerned. Difficult cases are recommended under the Council's scheme for treatment at the General Hospital at the time of confinement.

Pre-natal clinics were also held at the Queen's Institute of District Nursing. Twenty-three sessions were held and 131 patients were seen by the Assistant Medical Officer. The corresponding figures for 1928 are sixteen and ninety-two. In addition to these, 173 pregnant women were seen and advised at the welfare centres and elsewhere.

Doctors' Bills

The Maternity and Child Welfare Committee undertakes the payment of doctors' and midwives' bills in cases where it has been necessary, under the rules of the Central Midwives Board, for a trained midwife to send for medical aid at the time of a confinement. All these cases are interviewed by the Assistant Medical Officer and then brought to the General Purposes Sub-Committee, which decides the amount, if any, to be recovered from the patients. After the decision of the Committee, the patient is notified from the Central Building Office and payment is made there by weekly instalments.

Dental Treatment

As in previous years, children under school age and pregnant or nursing mothers may be treated by the School Dental Officer on the recommendation of the Assistant Medical Officer. Two evenings each week are set apart for this. Payment for treatment is made to the Dental Clinic direct or later by instalments at the Central Building or at the welfare centres.

The cost of material was approximately the same as that of last year, viz.:—£39. Bills amounting to £59 were sent to twenty-two patients. Over £46 was collected on these accounts and on those outstanding from previous years. Over £18 has also been collected in small fees for which no bills were issued. Table M. & C.W. 8 shews the numbers dealt with and the forms of treatment.

Free Milk

Applications for free milk are considered each week by the Milk Sub-Committee. Milk is granted to pregnant and nursing mothers and for children under one year of age, if the income of the family is below a certain scale. The income is ascertained from inquiries made of employers and the Employment Bureau. One pint of milk is allowed daily for one month, or two pints in the case of twins or of a mother who is six months' pregnant and has a baby under one year. Fresh application must be made and further inquiries made of employers, etc. before the end of each month, if the milk is still required. The utmost care is

taken to prevent ineligible people from obtaining this assistance. All applicants are known personally to the health visitors and the Assistant Medical Officer. Following a communication from the Ministry of Health in March, 1928, applicants in receipt of poor law relief were precluded from obtaining milk through the Milk Sub-Committee directly. Suitable poor law applicants may, however, be recommended by the Assistant Medical Officer to the Guardians for an allowance of milk. 13,382 pints of "Pasteurised" milk were supplied under contract with local firms at a cost of about £141. 487 applications were considered by the Committee, of which 442, including 96 renewals, were granted. Forty-five applications were refused.

Dried Milk

"Cow and Gate" dried milk is sold at cost price at the Central Building Office. This milk is not allowed to women in receipt of free milk. When the baby is one year old the milk is discontinued. There is an increase in the amount of "Cow and Gate" milk sold. 9,310 pounds, as against 8,907 pounds, were sold to 260 separate customers. The cost of this was £697, all of which was refunded by the mothers.

Puerperal Fever

Nine cases, including three from the County, occurred (one case of undoubted puerperal fever was not notified). All nine were treated at the General Hospital; three died, two of whom were from the County. Two of the deaths were due to septicæmia and the third to pulmonary embolus.

Puerperal Pyrexia

There were seven cases (one from the County) notified as suffering from puerperal pyrexia. One, the County case, was removed to the General Hospital. In this patient, pyrexia was probably due to venereal disease. Of the Town cases, one had kidney trouble, one septic sutures, and one double empyemata and pelvic abscess from which she died later (in 1930). In the remainder, the cause of pyrexia was unknown. All, with the exception mentioned, made good recoveries.

Maternal Deaths

Four women died, two from puerperal sepsis and two from conditions associated with parturition. Of the latter two, one died in the General Hospital from pyelonephritis, and one from ante- and post-partum hæmorrhage, also in the General Hospital.

The Ministry of Health now requires each maternal death to be investigated and reported on in detail. For this purpose it is necessary for the Assistant Medical Officer to interview both the doctor and midwife in charge of the case and frequently the General Hospital Authorities in addition.

Ophthalmia Neonatorum

Seven cases of ophthalmia were notified. Four were patients of doctors and two of midwives. There was also one institutional case. One of these cases attended the General Hospital as an out-patient, three were treated as in-patients, and three dealt with at home. Swabs were taken in all cases but in only four

were positive results obtained. Four were boys and three were girls.

Table M. & C.W. 9 shews details of these cases.

In five cases the discharge commenced during the first week and in two in the third week. In no case was there a history of the mother having had a vaginal discharge. In one instance impairment of vision resulted, viz.:—blindness in one eye and opacity of the cornea in the other. This child was illegitimate.

Diarrhœa and Enteritis

Seven babies under the age of two years died from diarrhœa and enteritis. The corresponding figure for 1928 was two.

TABLE M. & C.W. 1 NORTHAMPTON, 1925–1929.

INFANT MORTALITY. CAUSES OF DEATH.

CAUSES OF DEATH.	1925	1926	1927	1928	1929
Atrophy, Debility, and Marasmus	15	7	8	5	8
Convulsions	2	11	4	3	3
Bronchitis and Pneumonia	18	10	7	13	12
Whooping Cough	5	4	8	—	1
Measles	3	—	—	2	—
Premature Birth	27	15	32	25	20
Diarrhœa, Enteritis, and Gastritis	8	8	4	1	7
All Other Causes	20	17	15	21	15
TOTAL DEATHS	98	72	78	70	66
TOTAL LIVE BIRTHS	1471	1309	1281	1308	1249
INFANT MORTALITY	66·6	55·0	60·9	53·5	52·8

TABLE M. & C.W. 2. ENGLAND AND WALES AND NORTHAMPTON, 1920–1929.

INFANT MORTALITY IN EACH YEAR OF THE DECENNIUM.

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
England and Wales	80	83	77	69	75	75	70	70	65	74
Northampton	73·8	65·9	52·2	57·2	52·1	66·6	55·0	60·9	53·5	52·8

TABLE M. & C.W. 3. NORTHAMPTON, 1929.

LIVE BIRTHS AND STILLBIRTHS REGISTERED AND NOTIFIED.

	MALES.	FEMALES.	TOTAL.
Number of Live Births Registered	614	635	1249
Number of Stillbirths Registered	33	15	48
Total Number of Births Notified	657	669	1326
Number of Live Births Notified	624	654	1278
Number of Stillbirths Notified	33	15	48

TABLE M. & C.W. 4. NORTHAMPTON, 1929.

NOTIFICATION OF BIRTHS. SOURCES OF NOTIFICATION.

	NUMBER.	PROPORTION PER CENT.
Medical Practitioners	505*	38·1
Certified Midwives	762	57·5
Parents and Others	59	4·4
Totals ..	1326	100.0

*Includes 83 also notified by Midwives.

TABLE M. & C.W. 5. NORTHAMPTON, 1929.

NOTIFICATION OF BIRTHS NUMBER AND CLASSIFICATION OF NOTIFIED AND NON-NOTIFIED CASES OF BIRTH, THE CIRCUMSTANCES ATTENDING WHICH WERE THE SUBJECT OF INVESTIGATION.

Classification.	LIVE BIRTHS.								STILLBIRTHS.							
	MATURE.				PREMATURE.				MATURE.				PREMATURE.			
	Single.		Multiple.		Single.		Multiple.		Single.		Multiple.		Single.		Multiple.	
	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.
	1015	50	41	0	37	1	6	0	17	0	1	0	13	1	2	0
Totals.	1065		41		38		6		17		1		14		2	
	1106				44				18				16			
	1150								34							
	1184															

Table M. & C.W. 6. Northampton, 1929.

Maternity and Infant Welfare Centres Statistics

Centre.	Day of Meeting (2.30—4.30 p.m.).	Average Attendance per Week.			Average Number consulting Doctor per Session.
		Mothers (incl. Expectant Mothers).	Expectant Mothers.	Babies and Toddlers.	
Abington Avenue	Thursdays	65	2	71	50
Central Building	Wednesdays	53	3	63	49
Central Building	Thursdays	50	2	53	43
Doddridge Memorial	Tuesdays	41	3	47	45
Far Cotton	Fridays	37	2	44	39
Kingsthorpe	Tuesdays	32	2	35	28
St. Edmund's ...	Fridays	52	2	59	40
St. Sepulchre's ..	Wednesdays	52	2	58	37
	Totals	382	18	430	331

TABLE M. & C.W. 7. NORTHAMPTON, 1929.

MIDWIVES ACTS. NOTIFICATIONS RECEIVED FROM MIDWIVES

NATURE OF REPORT.	MIDWIVES NOTIFYING.	NO. OF REPORTS.	REMARKS.
Records of Sending for Medical Help ...	18	155	Mother's condition 127 Infant's condition 28 Mother and Infant 0
Notifications of Still-birth	3	8	Full Term ..... 5 Premature 3
Notifications of Death	1	1	Mothers ..... 0 Infant 1
Notifications of Artificial Feeding ...	6	10	Mother's condition 7 Infant's condition 1 Mother going to work or not wishing to feed her baby 2
Notifications of Liability to be a Source of Infection	5	5	—
Notifications of Having Laid Out a Dead Body	1	1	Mothers ..... 0 Old Lady 1
Total	19	180	—

Table M. & C.W. 8. Northampton, 1929.

Summary of Dental Operations.

NATURE OF OPERATION, ETC.	MOTHERS.	CHILDREN.	TOTALS.
Number seen	42	102	144
Number treated	36	96	132
Number of attendances	183	182	365
Number of teeth extracted	102	189	291
Number of administrations of local anæsthetic	41	118	159
Number of fillings	23	—	23
Number of linings	12	—	12
Number of teeth treated with nitrate of silver	3	293	296
Number of dressings	6	—	6
Number of scalings	7	—	7
Number of artificial plates	21	—	21
Number of plate repairs	5	—	5
Number of teeth on plates	254	—	254
Number of other operations	4	1	5
Number completed	18	76	94
Number partly completed, continued to 1930	16	20	36

Table M. & C.W. 9 Northampton, 1929.

Ophthalmia Neonatorum. Analysis of Cases Notified, with Ultimate Result.

CASES NOTIFIED.	TREATED.		ULTIMATE RESULT.			
	AT HOME.	IN HOSPITAL.	VISION UN-IMPAIRED.	VISION IMPAIRED.	TOTAL BLINDNESS.	DIED.
7	3	4*	6	1	—	—

*Three as in-patients and one as an out-patient at the General Hospital.

See also Section VI. of Medical Officer's Report (pages 31 and 33).

APPENDIX III.

STATISTICAL TABLES.

Table 1. Northampton, 1920–1929.

Natural Increase of Population in Each Year of the Decennium.

YEAR (MIDDLE)	POPULATION (TOTAL)	BIRTHS	DEATHS	NATURAL INCREASE OF POPULATION	INCREASE PER 1,000
1920	92950	2248	1047	1201	12·9
1921	92300	1881	964	917	9·9
1922	92950	1646	1046	600	6·4
1923	93230	1662	1086	576	6·2
1924	93590	1534	1036	498	5·3
1925	93970	1471	1116	355	3·8
1926	93740	1309	1064	245	2·6
1927	93260	1281	1124	157	1·7
1928	94270	1308	1060	248	2·6
1929	94180	1249	1093	156	1·7

Table 2. England and Wales and Northampton, 1920–1929.

Birth-rates in Each Year of the Decennium.

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
England and Wales ...	25·4	22·4	20·6	19·7	18·8	18·3	17·8	16·7	16·7	16·3
Northampton	24·2	20·4	17·7	17·8	16·4	15·6	14·0	13·7	13·9	13·3

Table 3. England and Wales and Northampton, 1920–1929.

Death-rates in Each Year of the Decennium.

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
England and Wales ...	12·4	12·1	12·9	11·6	12·2	12·2	11·6	12·3	11·7	13·4
Northampton	11·3	10·4	11·3	11·6	11·1	11·9	11·4	12·0	11·3	11·6

Table 4. Northampton, 1929. Meteorological Data.

Month.	Rainfall.				Temperature.						Direction of Wind.				Quarters
	Total inches.	Greatest in 24 hours. Depth.	Greatest in 24 hours. Date.	Days on which 0.01 in. or more fell.	Mean.	Maximum. Deg.	Maximum. Date.	Minimum. Deg.	Minimum. Date.	No. of Nights at or below 32 deg.	S. W. Quadrant including W. Days.	S.E. Quadrant including S. Days.	N.E. Quadrant including E Days.	N.W. Quadrant including N. Days.	
January ...	1·19	0·24	31	16	34·90	50·0	29, 30, 31	22·0	27	20	5	4	14	8	First.
February	0·62	0·23	2	9	32·44	51·0	2	15·0	14, 15	20	5	11	8	4	
March	0·03	0·02	24	2	43·04	67·0	30	21·0	2	16	5	1	15	10	
April	1·52	0·50	28	12	44·67	70·2	19	28·0	6	2	8	1	12	9	Second.
May	1·36	0·56	5	13	54·15	77·0	23	32·0	1	1	9*	8	10	4	
June	1·06	0·29	6	12	57·67	79·0	19	42·0	5, 6	—	17	3	4	6	
July	1·90	0·54	31	10	63·84	87·0	21	44·5	8	—	13	2	6	10	Third.
August ...	0·84	0·18	3	14	61·40	78·5	31	41·5	26	—	17	7	—	7	
September	0·48	0·23	30	3	61·85	83·0	8	40·0	26	—	9	5	3	13	
October ...	2·67	0·52	5, 24	17	50·08	64·0	12	31·5	27	3	21	2	1	7	Fourth.
November	5·27	0·72	23	20	44·42	57·0	7	29·0	17	7	13*	9	1	7	
December	4·44	0·75	8	24	42·92	57·0	14	31·5	23	2	17	9	—	5	
Year 1929	21·38	0·75	Dec. 8	152	49·28	87·0	July 21	15·0	Feb. 14 & 15	71	139	62	74	90	

* Includes one "calm" day.

Table 5. Northampton, 1929.

Summary of Routine Work carried out by the Sanitary Inspectors.

	Number of Inspections, etc.	No. at which Nuisances, Defects, etc., were Found.
1.—Total Number of Inspections and Visits	19559	
2.—Number of Premises at which Nuisances were Found		1149
3.—Total Number of Houses Inspected	2673	1015
4.—Number of these Houses Repaired		683
5.—Number of these Houses Cleansed and Whitewashed		594
6.—Number of Houses Cleansed after Certificate of M.O.H. (Sec. 46, P.H.A. 1875)		4
7.—Number of First Visits made in consequence of Complaints by Residents	569	454
8.—Notices Served	755	
9.—Drains :—		
Tested by Smoke Test	14	5
Tested by Volatile Test	29	9
Tested by Water Test	3	2
Exposed under Sec. 41, P.H.A. 1875	11	9
Drains reported choked		111
Drains reconstructed		51
Drains repaired		32
Bath, lavatory, or sink waste pipes disconnected from drains		0
New pans fixed to closets		33
Indoor soil pipes abolished		3
Closets supplied with flushing apparatus		4
10.—Contraventions of Bye-laws :—		
Animals kept so as to be a nuisance		1
Animals kept in contravention of Bye-laws		0
Accumulations of manure, etc., at :—		
(*a*) Houses		3
(*b*) Other premises		3
Other contraventions		0
11.—Other Nuisances :—		
Overcrowding in houses		4
Yard pavings re-laid or repaired		78
Spoutings repaired or renewed		91
New slop sinks fixed		26
Inspections of courts and alleys	21	4
Houses supplied with town water		1
Chimney observations	18	2
Miscellaneous nuisances		107

Continued on next page.

TABLE 5.—*continued.*

	Number of Inspections, etc.	No. at which Nuisances, Defects, etc., were Found.
12.—Factories and Workshops :—		
Number of Factories Inspected	102	18
Number of Workshops Inspected	99	7
Number of Workplaces Inspected	76	18
Number of Outworkers' Premises Inspected	50	3
13.—Dairies, Cowsheds, and Milkshops :—		
Number of Inspections	287	8
Number of New Registrations	18	
14.—Bakehouses—Number of Inspections	191	34
15.—Slaughterhouses :—		
Number of Inspections while Slaughtering was in Progress	3619	40
Number of Other Inspections	178	15
16.—Other Premises where Food is Manufactured or Stored—Number of Inspections	1141	12
17.—Sale of Food and Drugs Acts—Number of Samples sent to Public Analyst	242	8
18.—Infectious Diseases—Visits to Infected Houses :—		
(*a*) First visits for investigation	1767	
(*b*) Weekly visits to secure isolation	305	
(*c*) Visits to control disinfection	904	
Visits to Smallpox Contacts	2993	
Rooms stripped under I.D.P. Act	751	
19.—Tuberculosis—Rooms stripped, etc.	86	
20.—Number of Visits for Inspection of :—		
(*a*) Schools	14	3
(*b*) Public Lavatories	148	1
(*c*) Van-dwellers	16	1
(*d*) Cinemas, etc.	12	2
21.—House-to-House Inspection :—		
Number of Houses Inspected	97	76
Houses Cleansed and Whitewashed		59
Defective Houses Repaired		49
22.—Houses Unfit for Human Habitation reported to M.O.H. under :—		
(*a*) Sec. 11, Housing Act, 1925	8	8
(*b*) Sec. 3, Housing Act, 1925	0	0

Table 6. Northampton, 1929.

Reconstruction of Drains.

SITUATION OF PREMISES.	NO. OF HOUSES.
Abington Street, 92	1
Arthur Street, 10, 11	2
Bearward Street, 29	1
Bouverie Street, 25, 27	2
Cromwell Street, 8	1
Grey Friars Street, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	12
Hood Street, 48	1
Hunter Street, 23	1
Market Street, 11, 13, 15, 17	4
Newtown Road, 28A	1
Northcote Street, 58, 60, 62, 73, 75	5
Poole Street, 17, 19, 21, 23	4
Queens Road, 19, 21	2
St. George's Place, 15	1
St. Mary's Street, 27, 29, 31, 33	4
St. Michael's Road, 40, 42	2
Shakespeare Road, 6, 8, 10, 12, 14	5
Spencer Road, 3, 5	2
Total	51

Table 7. Northampton, 1929.

Drain Examination under Section 41 of the Public Health Act, 1875.

SITUATION OF PREMISES.	RESULT OF EXAMINATION.	REMARKS.
Arthur Street, 10, 11	Defective	Reconstructed.
Bath Street, 18, 20	No defects found	No further action taken.
Market Street, 7, 9	Defective	Reconstruction completed in 1930.
Market Street, 11, 13, 15, 17	Defective	Reconstructed.
Mayorhold, 25A	Defective	Reconstruction completed in 1930.
Number of Drains Examined		11.

Table 8. Northampton, 1919–1929.

Number of Rats known to have been Destroyed by the Official Rat-catcher in each Year.

YEAR.	NUMBER OF TAILS.
1919 (three months)	163
1920	3,214
1921	2,994
1922	3,237
1923	3,337
1924	3,624
1925	2,976
1926	2,155
1927	2,434
1928	2,814
1929	3,331
Total	30,279

Table 9. Northampton, 1929.

Unsound Food Voluntarily Surrendered and Destroyed.

NATURE OF FOOD.	WEIGHT.			
	TONS.	CWTS.	QRS.	LBS.
Beef, home killed	24	8	3	2
Beef, imported	—	4	1	0
Mutton, home killed	1	9	3	4
Mutton, imported	—	—	—	5
Offal, home killed	1	8	0	21
Pork, home killed	5	12	3	27
Veal, home killed	—	8	0	1
Eggs, imported	—	1	0	16
Fish	2	13	1	8
Sausages	—	—	—	18
Total (656 surrenders*)	36	6	2	18

Al o 3,317 tins of food, 34 rabbits, 5 hares, 2 turkeys, and 1 duck.

* There was also one seizure. *See* page 17.

Table 10. Northampton, 1929.

Unsound Food. Statement of Carcases of Meat Condemned, shewing Number affected with Tuberculosis.

NATURE OF FOOD.	MEAT CONDEMNED.		MEAT FOUND TO BE TUBERCULOUS.	
	WHOLE CARCASES.	PART CARCASES.	WHOLE CARCASES.	PART CARCASES.
Beef	101	57	73	41
Mutton	98	1	—	—
Pork	86	115	55	114
Veal	13	—	5	—

Table 11. Northampton, 1929.

Food and Drugs. Samples taken for Analysis.

Nature of Sample.	Informal Samples.		Official Samples.	
	Total Number.	No. not Genuine.	Total Number.	No. not Genuine.
Baking Powder	2	—	—	—
Borax	2	—	2	—
Butter	—	—	2	—
Camphorated Oil	4	—	—	—
Cocoa	4	—	—	—
Cornflour	2	—	—	—
Cream	12	—	—	—
Cream of Tartar	4	—	—	—
Custard Powder	—	—	2	—
Dripping	2	—	—	—
Flour	2	—	—	—
Gregory Powder	1	—	—	—
Ground Almonds	3	—	—	—
Jam	2	—	—	—
Lard	2	—	4	—
Liquorice Powder	3	—	—	—
Magnesia	2	—	—	—
Margarine	—	—	6	—
Milk	25	2	132	6
Milk (skim)	—	—	2	—
Mustard	2	—	—	—
Pepper	2	—	—	—
Rice	4	—	—	—
Sausages	4	—	—	—
Sugar	2	—	—	—
Tapioca	2	—	—	—
Vinegar	—	—	2	—
White Precipitate Ointment	2	—	—	—
Totals	90*	2	152*	6

*A grand total of 242 samples, eight of which (3·3 per cent.) were found not to be genuine.

Table 12. Northampton, 1929.

Enterica, Smallpox, Scarlet Fever, and Diphtheria.

Disease.	Notifications.	Attack-rates per 1,000.	Deaths.	Death-rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
Enterica	9	0·10	1*	0·01	11·1	8	88·9
Smallpox	479	5·10	1*	0·01	0·2	479	100·0
Scarlet Fever	279	2·96	—	—	—	186†	66·7
Diphtheria	185	1·97	12	0·13	6·5	154‡	83·2

Figures given in this Table refer to notifications received without reference to corrected diagnosis.

* See text for particulars of these deaths.

† Includes one removed to the General Hospital for mastoid operation.

‡ Includes seventeen admitted to the General Hospital, five being transferred subsequently to the Borough Infectious Diseases Hospital.

Table 13. Northampton, 1929.

Borough Hospital, Harborough Road. Cases of Communicable Disease under Treatment.

	Scarlet Fever.	Diph-theria.	Enter-ica.	Tuber-culosis.	Total.
Number remaining from 1928	12	7	—	—	19
Number admitted during 1929	186	145	8	54	393
Number discharged during 1929	173	128	8	47	356
Number died during 1929	—	5	—	7	12
Number remaining at end of 1929 ...	25	19	—	—	44

Table 14. Northampton, 1929.

Number of Articles Disinfected by Steam Month by Month at the Disinfecting Station, St. Andrew's Road.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1233	1534	2113	2243	965	1020	891	722	788	803	1005	651	13968

Table 15. Northampton, 1929.

Clinical Bacteriology. Number of Suspected Cases in which Examination was Made and the Number and Nature of the Reports Received in Connection with These.*

Diphtheria—Throat and Nose Secretions.				Typhoid and Paratyphoid Fevers—Dreyer's Tests, etc.				Tuberculosis—Sputum, Urine, etc.				Other Conditions.				Totals.			
	Reports received.				Reports received.				Reports received.				Reports received.				Reports received.		
No. of Suspected Cases	Positive	Negative	Total	No. of Suspected Cases	Positive	Negative	Total	No. of Suspected Cases	Positive	Negative	Total	No. of Suspected Cases	Positive	Negative	Total	No. of Suspected Cases	Positive	Negative	Total
550	303	998	1301	15	9	12	21	400	119	419	538	1	1	—	1	966	432	1429	1861

* The above Table does not take into account the reports made in connection with the venereal diseases scheme.

Table 16. Northampton, 1929.

Housing Act, 1925. Houses represented by the Medical Officer of Health during the Year. Subsequent Action and Condition at the End of the Year.

HOUSES.	DATE OF			REMARKS.
	Representations.	Closing Orders.	Demolition Orders.	
Bridge Street, Court 7 (Fox's Yard); 1, 2, 3, 4, 5, 6, 7, and 9	9–10–29	—	—	Nos. 1 and 9 empty; remainder occupied

Table 17. Northampton, 1929.

Housing Acts, 1909–1925. Houses represented by the Medical Officer of Health previous to 1929, but not Finally Dealt with before this Year began. Action taken during 1929, and Condition at the End of the Year.

HOUSES.	DATE OF			REMARKS.
	Representations.	Closing Orders.	Demolition Orders.	
Bath Street, 88 and 90	7–7–26	10–11–26	7–5–28	Demolished
Bearward Street, 36	19–2–19	2–6–19	—	Used as shed, etc. (not reconstructed)
Bearward Street, 46 and 48	9–12–25	8–3–26	7–10–29	Both empty
Chapel Gardens, 6 7, 8, 9, and 10	4–4–28	7–1–29	—	No. 6 used as a store: No. 7 occupied; remainder empty
Clifton Place, 1, 2, 3, 4, 5, and 6	9–5–28	30–7–28	28–1–29	Demolished
Crispin Street, 25, 27, 29, and 31	4–5–27	10–11–27	—	No. 27 occupied; remainder empty
Fetter Street, 29 and 31	14–11–28	28–1–29	7–10–29	Both empty
Freeschool Street, 16	16–11–27	5–3–28	1–10–28	Demolished
Freeschool Street, 22	21–1–20	7–6–20	4–3–29	Demolished
Gas Street, 18	14–4–26	6–12–26	4–3–29	Partially demolished

Continued on next Page.

TABLE 17—*continued.*

HOUSES.	DATE OF			REMARKS.
	Representations.	Closing Orders	Demolition Orders.	
Horsemarket, 15 and 17	7–3–28	4–6–28	6–5–29	Demolished
Horseshoe Street, 13, 15, 17, 19, and 21	11–9–25	7–12–25	30–7–28	Demolished
Leicester Street, 6, 8, and 10	16–11–27	7–5–28	2–12–29	Empty
Mayorhold, 26	7–12–27	5–3–28	—	Thoroughly repaired and renovated. C.O. rescinded by Council, 3–6–29
Narrow Toe Lane, 3, 4, and 5	16–3–27	13–6–27	3–12–28	Demolished
Regent Square, 1 and 2 (dwelling portions)	7–3–28	4–6–28	—	Both empty
Regent Street, 49 ...	6–10–26	7–3–27	5–3–28	Demolished
Riding, 25, 26, 27, 28, and 32	20–9–22	4–12–22	—	No. 26 occupied ; remainder used as stores (not altered)
Riding, 33, 34, and 36	20–9–22	1–1–23	—	No. 36 used as store (not altered); remainder occupied
St. Mary's Street, 4 and 6	30–10–12	10–2–13	2–1–28	Demolished
St. Mary's Street, Court 3 ; 3 and 4	7–9–27	5–12–27	8–4–29	Empty
Scarletwell Street, 111	4–4–28	30–7–28	8–4–29	Demolished
Scarletwell Street, Court 3 ; 2, 3, 4, 5, and 6	5–9–28	3–12–28	7–10–29	Demolished
Todd's Lane, 2, 4, 6, 8, 10, 12, 14, and 16	16–11–27	5–3–28	—	All empty
Vicarage Lane, The Yard, 2, 3, 4, and 5	14–11–24	2–2–25	4–3–29	Demolished

Table A.

COUNTY BOROUGH OF NORTHAMPTON.

Vital Statistics during 1929 and Previous Years.

Year.	Population estimated to Middle of each Year. (Total)	Births.			Total Deaths registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.						Under 1 Year of Age		At all Ages.	
			Number.	Rate.	Number	Rate.	Non-residents registered in the District.	Residents not registered in the District.	Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1919	88944	1432	1411	15·3	1301	14·6	137	54	116	82·2	1218	13·7
1920	92488	2318	2248	24·2	1137	12·3	130	40	166	73·8	1047	11·3
1921	92300	1924	1881	20.4	1022	11.1	123	65	124	65.9	964	10 4
1922	92950	1697	1646	17.7	1108	11.9	116	54	86	52.2	1046	11.3
1923	93230	1723	1662	17.8	1177	12.6	140	49	95	57.2	1086	11.6
1924	93590	1591	1534	16·4	1143	12.2	149	42	80	52.1	1036	11.1
1925	93970	1531	1471	15.6	1229	13.1	167	54	98	66.6	1116	11.9
1926	93740	1393	1309	14.0	1163	12.4	174	75	72	55.0	1064	11 4
1927	93260	1362	1281	13·7	1248	13·4	170	46	78	60·9	1124	12·0
1928	94270	1366	1308	13·9	1204	12·8	207	63	70	53·5	1060	11·3
1929	94180	1332	1249	13·3	1269	13·5	226	50	66	52·8	1093	11·6

This Table is arranged to shew the gross births and deaths in the district and the births and deaths properly belonging to it with the corresponding rates.

Column 6 includes the whole of the deaths registered during the year as having actually occurred within Northampton and excludes any deaths of soldiers and sailors. Such deaths were as follow :—

YEAR.	NO. OF DEATHS
1919	9
1920	1
1921	0
1922	0
1923	1
1924	0
1925	0
1926	2
1927	0
1928	0
1929	0

TABLE B.

COUNTY BOROUGH OF NORTHAMPTON.

Cases of Notifiable Diseases during the Year 1929.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.													CASES NOTIFIED IN EACH WARD.											Cases Admitted to Borough Hospitals.	Total Deaths (*see* Table C.).
	All Ages.	AGES (IN YEARS).												Abington	Castle	Delapre	Kingsley	Kingsthorpe	North	St. Crispin's	St. Edmund's	St. James'	St.Lawrence's	St. Michael's	South		
		0–	1–	2–	3–	4–	5–	10–	15–	20–	35–	45–	65–														
Acute Poliomyelitis	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Chickenpox	775	30	36	37	61	90	456	42	13	9	1	—	—	26	120	96	57	55	149	45	10	75	83	24	35	—	1
Diphtheria	185	1	1	11	13	23	86	24	9	13	3	1	—	2	19	19	3	9	35	13	8	4	18	7	48	142	12
Enterica	9	—	—	—	—	—	2	2	2	2	—	1	—	—	—	—	—	8	—	—	—	1	—	—	—	8	1
Erysipelas	61	2	—	—	1	—	—	1	1	6	12	30	8	1	10	6	6	5	3	3	—	10	4	5	8	—	2
Ophthalmia Neonatorum	7	7	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—	2	1	—	—	—	—	1	—	—
Pneumonia	258	15	16	27	11	10	27	5	6	39	21	34	47	17	30	20	33	16	25	16	16	21	30	19	15	—	78*
Puerperal Fever	8	—	—	—	—	—	—	—	—	6	2	—	—	—	—	1	1	—	—	—	—	2	—	—	4	—	2
Puerperal Pyrexia	7	—	—	—	—	—	—	—	—	7	—	—	—	1	1	—	1	—	1	—	—	1	—	1	1	—	—
Scarlet Fever	279	—	1	6	7	21	135	64	17	22	6	—	—	26	11	15	51	65	15	22	15	13	17	19	10	185	—
Smallpox	479	11	2	11	5	9	63	66	83	140	33	49	7	8	112	30	23	26	93	18	7	60	55	11	36	479†	1
Tuberculosis :—																											
Respiratory	119	—	—	—	—	1	—	1	16	49	19	28	5	9	19	4	11	11	8	6	8	11	11	12	9	60‡	69
Other Forms	17	1	1	—	—	—	1	2	5	5	1	1	—	—	3	—	2	2	3	—	—	2	2	—	3	2§	8
Totals	2205	67	58	92	98	154	770	207	152	298	98	144	67	90	326	191	191	197	334	124	64	200	220	98	170	876	174

*Eighteen of these were from influenzal pneumonia.
†Seventy were treated at Welford Road Hospital between 8th February and 17th May.
‡Thirty-four to Harborough Road Hospital (Tuberculosis Wards), one to Welford Road Hospital, and twenty-five to Creaton Sanatorium.
§One to Manfield Orthopædic Hospital and one to Harborough Road Hospital (Tuberculosis Wards).

The above figures take no account of corrections in diagnosis. (*See* Section V. of this Report for further information).

INSTITUTIONS :—(1) Harborough Road Infectious Diseases Hospital (total available beds about 100) ;
(2) Welford Road Tuberculosis Hospital (28 beds) ;
(3) Smallpox Hospital, near Hardingstone (100 beds) ;
(4) Creaton Sanatorium, Northampton (15 beds reserved for Northampton County Borough) ;
(5) Manfield Orthopædic Hospital, Northampton (20 beds available for surgical tuberculosis cases).

TABLE C.

COUNTY BOROUGH OF NORTHAMPTON.

Causes of Death at Different Periods of Life during the Year 1929.

Causes of Death.	Nett Deaths at the Subjoined Ages (in Years) of "Residents" whether occurring within or without the District.												Total Deaths whether of Residents or Non-Residents in Institutions in the District.
	All Ages.			0–	1–	2–	5–	15–	25–	45–	65–	75–	
	Total	M.	F.										
ALL CAUSES (Certified)	1087	538	549	66	16	31	22	40	109	253	256	294	456
ALL CAUSES (Uncertified)	6	2	4	—	—	—	—	—	—	—	2	4	—
*1. Enteric Fever	1	—	1	—	—	—	—	—	1	—	—	—	1
2. Smallpox	1	—	1	—	—	—	—	—	—	1	—	—	—
3. Measles	11	9	2	—	6	5	—	—	—	—	—	—	1
4. Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
5. Whooping Cough	3	1	2	1	1	1	—	—	—	—	—	—	—
6. Diphtheria	12	7	5	—	1	7	4	—	—	—	—	—	8
*7. Influenza	32	19	13	1	—	—	—	2	5	8	6	10	3
8. Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	1
9. Meningo-coccal Meningitis	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Tuberculosis of Respiratory System	69	37	32	—	—	—	1	16	32	18	2	—	8
*11. Other Tuberculous Diseases	8	4	4	—	1	1	2	2	1	1	—	—	12
12. Cancer, Malignant Disease	148	63	85	—	—	—	—	—	11	62	41	34	56
13. Rheumatic Fever	5	1	4	—	—	—	3	2	—	—	—	—	3
14. Diabetes	8	4	4	—	—	—	1	—	1	—	2	4	4
15. Cerebral Hæmorrhage, etc.	47	20	27	—	—	—	—	—	2	8	16	21	13
16. Heart Disease	248	113	135	—	—	—	—	6	12	56	83	91	73
17. Arterio-sclerosis	34	20	14	—	—	—	—	—	—	6	14	14	9
18. Bronchitis	77	29	48	6	1	—	1	—	—	8	27	34	19
*19. Pneumonia (all forms) (*see* also 7 (*a*) below)	60	28	32	6	3	8	—	—	11	9	15	8	19
20. Other Respiratory Diseases	6	1	5	—	—	1	—	—	—	1	2	2	4
21. Ulcer of Stomach or Duodenum	12	10	2	—	—	—	—	1	2	6	2	1	21
22. Diarrhœa, etc.	11	6	5	6	1	1	—	—	—	2	—	1	8
23. Appendicitis	5	3	2	—	—	—	1	1	1	1	1	—	11
24. Cirrhosis of Liver	5	4	1	—	—	—	—	—	—	3	1	1	3
25. Acute and Chronic Nephritis	41	24	17	—	—	—	2	3	3	11	12	10	15
26. Puerperal Sepsis	2	—	2	—	—	—	—	—	2	—	—	—	8
27. Other Accidents and Diseases of Pregnancy and Parturition	2	—	2	—	—	—	—	—	2	—	—	—	4
28. Congenital Debility and Malformation, Premature Birth	36	15	21	34	1	—	1	—	—	—	—	—	8
29. Suicide	27	19	8	—	—	—	—	1	10	9	2	5	8
30. Other Deaths from Violence	26	15	11	—	—	2	2	1	3	6	6	6	42
*31. Other Defined Diseases	156	88	68	12	1	5	4	5	10	37	26	56	94
32. Causes Ill-defined or Unknown	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	1093	540	553	66	16	31	22	40	109	253	258	298	456
*Sub-entries included in above figures. 1 (*a*) Paratyphoid Fever	1	—	1	—	—	—	—	—	1	—	—	—	—
7 (*a*) Influenzal Pneumonia	18	12	6	—	—	—	—	1	4	4	3	6	2
11 (*a*) Tuberculous Meningitis	5	3	2	—	1	1	1	2	—	—	—	—	7
19 (*a*) Broncho-pneumonia	28	10	18	4	2	5	—	—	2	4	6	5	11
31 (*a*) Old Age	36	17	19	—	—	—	—	—	—	—	4	32	1
(*b*) Meningitis	3	3	—	—	—	2	1	—	—	—	—	—	8
(*c*) Syphilis	1	1	—	—	—	—	—	—	—	1	—	—	1
(*d*) Chickenpox	1	1	—	—	—	1	—	—	—	—	—	—	—
(*e*) Erysipelas	2	2	—	—	—	—	—	—	—	1	1	—	5
(*f*) Poliomyelitis	1	1	—	—	—	—	—	—	—	1	—	—	—

Nett Deaths Registered.	M.	F.	Totals.		Death-Rates.
First Quarter	192	222	414	...	17·6
Second Quarter	121	100	221	...	9·4
Third Quarter	103	99	202	...	8·6
Fourth Quarter	124	132	256	...	10·9
Totals (52 weeks)	540	553	1093	...	11·6

TABLE D.

COUNTY BOROUGH OF NORTHAMPTON.

INFANT MORTALITY DURING THE YEAR 1929.

Nett Deaths from stated Causes at various Ages under One Year.

Causes of Death.	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under 1 year
ALL CAUSES Certified	28	6	3	1	38	9	5	4	10	66
ALL CAUSES Uncertified	...	...	...	...	...	...	...	...	...	...
1. Smallpox	...	...	...	...	...	...	...	...	...	...
2. Chickenpox	...	...	...	...	...	...	...	...	...	..
3. Measles	...	...	...	...	...	...	...	...	...	...
4. Scarlet Fever	...	...	...	...	...	...	...	...	...	...
5. Whooping Cough	...	...	...	...	...	...	...	...	...	...
6. Diphtheria	...	...	...	...	...	...	...	...	1	1
7. Erysipelas	...	...	...	...	...	...	...	...	...	...
8. Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...
9. Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...
10. Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...
11. Meningitis (*not Tuberculous*)	...	...	...	...	...	...	...	...	...	...
12. Convulsions	2	...	1	...	3	...	...	...	...	3
13. Laryngitis	...	...	...	...	...	...	...	...	...	...
14. Bronchitis	...	...	...	...	...	2	1	1	2	6
15. Pneumonia (all forms)	...	...	...	...	...	...	...	3	3	6
16. Diarrhœa	...	...	...	...	...	...	2	...	...	2
17. Enteritis	...	...	...	...	...	1	1	...	2	4
18. Gastritis	...	1	...	...	1	...	...	...	...	1
19. Syphilis	...	...	...	...	...	...	...	...	...	...
20. Rickets	...	...	...	...	...	...	...	...	...	...
21. Suffocation, overlying	...	...	...	...	...	...	...	...	...	...
22. Injury at Birth	4	...	...	...	4	...	...	...	...	4
23. Atelectasis	1	1	...	...	2	...	...	...	...	2
24. Congenital Malformations	...	...	...	...	...	2	...	...	...	2
25. Premature Birth	15	2	2	...	19	1	...	...	...	20
26. Atrophy, Debility, and Marasmus	3	2	...	1	6	2	...	...	...	8
27. Other Causes	3	...	...	...	3	1	1	...	2	7
Totals	28	6	3	1	38	9	5	4	10	66

	Live Births Registered.			Nett Deaths Registered.			Infant Death-rates.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Legitimate ...	583	606	1189	28	32	60	48·0	52·8	50·5
Illegitimate ...	31	29	60	6	0	6	193·6	0·0	100·0
Totals	614	635	1249	34	32	66	55·4	50·4	52·8

TABLE E. NORTHAMPTON, 1929.

REPORT ON THE

Administration of the FACTORY & WORKSHOP ACT, 1901, in connection with

Factories, Workshops, Workplaces, and Homework.

1.—INSPECTION.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES (Including Factory Laundries and Bakehouses)	102	18	...
WORKSHOPS (Including Workshop Laundries and Bakehouses)	99	7	...
WORKPLACES (Other than Outworkers' Premises)	76	18	...
OUTWORKERS' PREMISES	50	3	..
Totals	327	46	.

2.—DEFECTS FOUND.

Particulars. (1)	Number of Defects.			Number of Prosecutions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
*Nuisances under the Public Health Acts :—**				
Want of Cleanliness	7	7	...	...
Want of Ventilation	...	...	...	...
Overcrowding	...	...	...	...
Want of Drainage of Floors	...	...	...	...
Other Nuisances	1	1	...	...
Sanitary Accommodation — insufficient	...	...	...	...
Sanitary Accommodation — unsuitable or defective	2	2	...	...
Sanitary Accommodation — not separate for sexes	...	...	...	...
Offences under the Factory and Workshop Acts :—				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	36	36	...	...
Other Offences (Excluding offences relating to outwork which are included in Part 3 of this Report)	...	...	...	...
Totals	46	46	...	...

*Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3.—HOMEWORK.

NATURE OF WORK. (1)	OUTWORKERS' LISTS, SECTION 107.									OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists. (8)	Prosecutions.							
	Sending twice in a year.			Sending once in the year.				Failing to keep or permit inspection of lists. (9)	Failing to send lists. (10)	Instances. (11)	Notices served. (12)	Prosecutions. (13)	Instances. (14)	Orders made (S. 110). (15)	Prosecutions (Sections 109, 110). (16)
	Lists. (2)	Outworkers. Contractors. (3)	Outworkers. Workmen. (4)	Lists. (5)	Outworkers. Contractors. (6)	Outworkers. Workmen. (7)									
WEARING APPAREL :— (1) Making, etc.	10	3	15	6	6	37	...	...	...	1	1	...	2	2	...

There are no Outworkers in any of the other trades usually shown in the above table.
Figures given in Cols. 11 and 12 refer to premises requiring cleansing and whitewashing.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year. (1)	Number. (2)
Number of Workshops (including Bakehouses)	212
Number of Outworkers' Premises on Register	91
TOTAL Number of Workshops on Register	303

5.—OTHER MATTERS.

Class. (1)		Number. (2)
MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES :— Failure to affix abstract of Factory and Workshop Act (s. 133)		...
Action taken in matters referred by H. M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	Notified by H.M. Inspector	6
	Reports (of action taken) sent to H.M. Inspector	5
Other		1
Underground Bakehouses (s. 101) in use at the end of the year		1